HAUNTED AIRWAYS

BY THOMSON BURTIS

Into the air in a rocket plane!

What is the mysterious power that menaces the transcontinental airships of Independent Airways? Why do their motors stop simultaneously and cause a forced landing—always over the Mojave Desert?

Jeff Donaldson, youthful manager of Independent Airways—and winner of the round-the-world, no-stop race in a thirty hour flight, and his friend, Reginald Holmesdale, famous free-lance detective, are determined to find out.

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Professor Alexander Klemin, director of the Guggenheim School of Aeronautics, calls the world of *Haunted Airways* "a perfectly logical outcome of the inventions that are sure to come—and a marvelous book of adventure."

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By WILLIAM A. SIMONDS

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Francis Jehl had grown up on the East Side of New York, where he led a gang of hoodlums who made life a plague for shopkeepers and timid maidens. Then he became keenly interested in electricity, took a course at night school and in the daytime worked in a lawyer's office, while he idolized Edison from afar.

He was given an opportunity to assist in the laboratory at Menlo Park and for four years he had daily, friendly contact with the kindly genius who could go home from work at dawn, return at seven, and drop everything on a momentary whim to sing nonsensical songs or take in a show. Jehl watched interesting experiments with the telephone and the phonograph and when the incandescent light was perfected went to Europe as representative of the Edison Electric Light Company.

That is the body of the story Mr. Simonds tells but he gives a further glimpse of Francis Jehl when he returned to America after forty years abroad and helped to build a new Menlo Park to satisfy the homesick memories of his youth.

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HAUNTED AIRWAYS

By
THOMSON BURTIS

With a Foreword by
ALEXANDER KLEMIN

Director of the Daniel Guggenheim School of Aeronautics,
New York University

THE SUN DIAL PRESS
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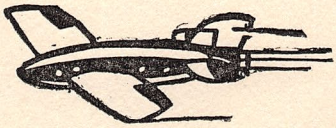
FOREWORD

"Haunted Airways" is a marvelous book of adventure with a thrill in every chapter. But it is much more than a tale of adventure. It is the product of a talented writer who has the scientific imagination of Jules Verne, and who forecasts with wonderful vision a most logical picture of the aviation of the future. A plane of twenty-eight thousand tons! Why not? Even today we have the fifty ton Dornier D. O. X. which would have been thought an impossibility in the days of the early pioneer flights. Mr. Burtis not only predicts what is likely to come, but gives us excellent engineering reasons for his predictions. Farley Metal is ten times as strong as ordinary steel and half the weight of duraluminum. But our chemists and metallurgists tell us that the strongest metal of today realizes but a fraction of the strength which complete molecular adhesion might realize for us, and are just beginning to think along these lines. The great Marconi is of the opinion that sooner or later power will be transmitted by wireless. Small electric motors receiving hundreds of horse-power through the ether and weighing only some fifty

pounds are not impossible; therefore with immensely lightened structure and power plant there is no limit to the size of airliners. Of course speed of five hundred miles per hour is possible when the airplane is reduced to its ultimate aerodynamic expression of a flying wing. The rocket principle of propulsion has been applied to the airplane and the automobile; it becomes efficient only at exceedingly high speeds and the rocket touraplane of the college boy may certainly come some day. Moreover the likeable hero and his friend the great detective move in a world which is a perfectly logical outcome of the inventions that are sure to come. The book will give the reader more than fascinating entertainment. It will give him inspiration and ideas. Some of its readers may one day bring about the very inventions which the author's imagination now sets forth so reasonably.

ALEXANDER KLEMIN
Daniel Guggenheim School of Aeronautics
New York University.



MENACE OVER THE MOHAVE

CHAPTER I

MENACE OVER THE MOHAVE

JEFFREY DONALDSON picked up the wireless telephone absently as the signal buzzed. His mind was concentrated on the progress of one of the five tiny moving lights on the map-like board in front of his desk.

"Independent Airways, general manager's office," he said automatically.

The next second his broad shoulders seemed to straighten and an electric thrill to galvanize his slim body.

"Reg! You old son of a gun," he barked. "Where are you? Huh? Then you'll be here in a minute or two! Why didn't you let me know? Good!"

He replaced the combination mouthpiece and receiver, jumped to his feet and proceeded to do a dignified jig around the floor of his lofty office. The situation confronting him no longer seemed serious, somehow, as long as Mr. Reginald Holmesdale was speeding toward him.

Then, abruptly, he ceased his solo dance and sat down again in front of his desk. A little light flashed over one of the vacuum mail tubes curving toward him over the desk, and he abstracted the latest edition of the *Evening Times* from it. He looked at it, his mind far away, and then his brown eyes widened slowly as they took in the flaring headlines.

"Moon Expedition Comes To Grief," it read, and a brief story below the headlines related what had happened.

A dozen men had started out in an aërial projectile, using the rocket system of propulsion, to explore the moon. An error in the mathematical calculation had resulted in their hitting too hard, and all twelve of them had perished. The signaler in the expedition had kept in touch with Earth until the moment of crashing, and had sent out the final message telling that the crash was inevitable.

"The first expedition on August 15, 1984, almost a year ago, met a similar fate for exactly the same reason," the paper went on to say. "Yesterday's try, however, came much nearer success, and in the opinion of Professor Gailbraith of the Government Astronomical Station, the next one should be entirely successful. Meanwhile, the scientists of

the world united in paying tribute to the dauntless little band of men who are the most recent martyrs in mankind's endeavor to explore outer space."

Donaldson dropped the paper and again gave his attention to the slowly moving lights on the map-like board. Each one marked the progress of one of the transcontinental passenger planes operated by Independent Airways. Number 4 was over Cleveland, Number 6 was just beyond Chicago, and Number 2 was speeding along south of Salt Lake. A second board, indicating the course of the eastbound ships, showed only two lights. It was eleven o'clock and traffic was not so brisk as it was during daylight hours.

But of all the lights, to the young general manager the one representing Number 2 held the most resistless fascination. He watched its slow course with almost hypnotic concentration. The mysterious danger zone was only half an hour away. What was going to happen to that light?

Well—Reg was coming. Reg would help. Jeff's lean face expanded into an involuntary smile as his thoughts dwelt momentarily on the young Englishman whose expected arrival was giving him so much comfort.

With an effort, he removed his gaze from that Number 2 light and forced himself to look out over the myriad lights of New York. A hundred feet below his office, which was completely enclosed in glass except for the floor, stretched the huge expanse of the Union Airdrome. His office was but one of a line of towers overlooking it. A dozen ships, ranging from one of the United Transportation Company's thousand-passenger behemoths to the fast little hundred-passenger ships on the South American run, were drawn up before the hangars that fronted the airdrome.

It certainly was a relief, he reflected idly, to have the huge volume of short-haul traffic to Boston, Philadelphia, Washington, and other near-by cities removed from the Union Airdrome and given a base of its own. Even with that relief, it wouldn't be long before the terminal would have to be expanded. European traffic was picking up fast, now that ships for altitude above thirty thousand feet were in service. By the northern route, London was just a short, overnight hop. As a matter of fact, the European lines should have a base of their own down at the water front.

He gazed out over the city absently. Manhattan,

Island was a forest of skyscrapers intermingled with huge piles of stone, some of them four blocks square. Within these great structures were small cities of busy people. It seemed funny to think that there had been a time when people had actually lived in separate houses in cities, and that even manufacturing had been done within the borders of a metropolis. Now Manhattan was one huge mass of offices and stores, with a few hotels.

Again his eyes stole back to that Number 2 light. The ship was out over the great flat desert now, bound for Los Angeles.

Suddenly he leaped to his feet. Coming in for a landing was a tiny blue and gray monoplane of a design he could never forget. It was scarcely fifteen feet from wing tip to wing tip, and the peculiar tapering shape of the wings was the trade-mark of Reginald Holmesdale's well-known "Air Dog."

He picked up one of the line of telephones alongside his desk and the next second was barking into the transmitter. "Hardy, that blue and gray single seater that just landed is to be taken care of in our hangars. Go after it and direct Holmesdale up here."

He replaced the telephone and paced up and

down his office eagerly. He was almost six feet tall, and in the bold, aquiline outlines of his face there was purposefulness and strength, illumined by a sanguine spirit that shone from his eyes and was reflected in his smile. His dark eyes sloped downward slightly from his high-bridged nose, and his mouth was unusually wide above a lean, square jaw. Many people failed to notice what lay just beneath his contained face. They thought of the young general manager of Independent Airways as a terse young executive who was already, at twenty-three, a substantial business man and a factor to be reckoned with in aërial transportation. They were likely to miss the glinting recklessness in his eyes. Responsibility had aged him somewhat on the surface, but Jeff Donaldson had in him the rebound of a daredevil youngster.

His dark eyebrows sloped so steeply that they seemed to be perennially raised, and they imparted a curiously quizzical expression to his face. Lately, an unaccustomed frown had tempered the humorous look, but now his forehead was smooth. It was a very eager young face that was turned toward the lanky figure shambling across the airdrome toward his tower.

A moment later the door of an automatic elevator on one side of the office slid open noislessly, and Mr. Reginald Holmesdale stooped to emerge from it.

"Greetings," he said mildly, as he thrust out one exceedingly thin and long-fingered hand.

"Reg, you old son of a gun, why didn't you let me know you were on your way?" Jeff demanded, as he pumped the gangling detective's arm up and down.

"Didn't know when I'd get here. Didn't want to disappoint you. Always hate to make plans ahead of time," Holmesdale said in a gently jerky manner. "Congratulations, and all that."

"Congratulations!" barked Jeff, as he waved Holmesdale to a chair. "What I need is sympathy!"

"No, no. Round the world. Thirty hours. Almost as fast as the earth revolves, and all that," was Holmesdale's rejoinder, as he waved his hand spaciously in a gesture that seemed to encompass the whole universe.

"Oh, I see," nodded Donaldson. "Well, you human flagpole, it's certainly great to see you."

Holmesdale's congratulations referred to the fact

that four months before, Jeffrey had been the winner of a non-stop, round-the-world race in which he'd flown his own specially designed ship. Thirty hours had been an astounding, unheard-of time. It had been partly a scientific experiment and partly a method of getting publicity for the small independent company that had just started into competition for the transcontinental business.

Donaldson sat down, and for a moment said nothing as he scrutinized the old friend who was, in his opinion, the best detective in the world. That lanky, loose-jointed, long-faced young man before him had turned down offers to join almost every aërial police and secret service in the world. He preferred to be a free lance.

Holmesdale leaned far back in his chair, sliding down in it until he was resting almost on the back of his neck. His blond head was tilted backward and one abnormally long leg was curled around the other. He was tow-headed and freckled, and a pair of mild-looking gray eyes squinted humorously at the world from below bushy blond eyebrows. His nose was long and thin and humorously crooked, sweeping out at its tip to a sharp, inquisitive point. His wide mouth was slightly lopsided. All in all, he

seemed as harmless and genial a person as one would find in a day's flight. His movements were ordinarily slow and loose-jointed. He seemed to flap along through the world and always to be thoroughly relaxed. Perhaps, as Jeff had often reflected, that habit of utter muscular and mental ease was one of the reasons why he had so much energy stored up to release when an emergency arose.

"Well, Slats," Jeff said finally, "I see you cleaned up that mob in India, all right."

"Not much to it," Holmesdale replied, raising one foot to the edge of the desk. "No fun. Pretty dumb. Very little trouble."

He talked habitually in short, clipped sentences, but they were uttered with such gentleness that they didn't seem too abrupt. It was as though the effort to formulate his thoughts in regular sentences was too much for him.

His blond hair was totally unruly, and a lock of it was always hanging down over his forehead. At least once every minute he made a pass at pushing it back, and just as often it fell down into its customary place once more.

"General manager for Independent, huh?" Holmesdale went on. "Thought United had every-

thing sewed up. How come they didn't swallow you up?"

"Mr. Farley, our president, built a better, faster, safer ship, and besides that he doesn't like trusts," Jeff explained. "So we sailed in."

"Getting away with it?" Holmesdale asked idly.

As though that question had snapped his mind back to the problems confronting him, Donaldson's eyes darted to the indicator board. Number 2 light was moving slowly toward Los Angeles. It was almost to Las Vegas, now, and the few inches on the board that represented the three hundred miles between Las Vegas and Los Angeles would tell the story. Again that horrid fascination gripped the tanned young flyer, and it took effort for him to avert his eyes from the light to his friend.

"We have been," he answered slowly.

His voice was a baritone, and he uttered words in a casual, strong tone. It was the kind of voice that belonged to a frame that was packed with one hundred and seventy pounds of lithe strength.

"Have been?" Holmesdale repeated. "Not so good now, eh, what?"

"No," Jeff confessed. "See that light?"

Holmesdale cast a weary eye at Number 2. "What about it?" he asked.

"Slats, in the last two weeks, five of our ships have come down in the Mohave and two more have had to land within three hundred miles of the desert."

"Rum go," Holmesdale said slowly; then mixing his English and American slang: "How come?"

Upon occasion, he varied his speech with touches of German, French, Spanish, and Italian. There was no language, so far as Jeffrey knew, in which the thirty-one-year-old Holmesdale couldn't make himself understood.

"That's what we'd like to know," Jeff told him thoughtfully. "As it stands, our reputation for reliability is ruined, our business is all shot, and we can't last another week if our ships don't start getting through safely and on time!"

"Hard luck. Or isn't it?"

"It's not hard luck!" Jeff told him with finality. "It's something deeper. And that's what you're here for, at your regular pay, whatever that is!"

"Very little. Very little. Seven ships. Forced landings. Two weeks. What made 'em come down?

"Unfold your ears, Slats, and hold on to your chair. Every last one of them because the motors went flooey all at once!"

Holmesdale blinked an owlish eye, and one claw-like hand pushed back the lock of hair over his forehead.

"Do tell! Interesting, what? Been doing well before?"

"Capacity every trip."

"How many passengers? Each ship, I mean."

"Five hundred."

"How big? The ships, I mean."

"Three-hundred-foot wingspread."

"Hum! Five hundred passengers in a ship that small? How come?"

"That's the secret," Jeff told him. "Farley discovered a way to direct molecules of matter to give the greatest intensity of attraction. Result—a new metal. Started with electrons and built right up from there so that the electrons and atoms have the greatest attraction for each other. The stuff our ships are made out of can stand five hundred thousand pounds per square inch."

"Strong enough! Strong enough. What does it weigh?"

"Half as much as duralumin," Jeff told him briefly, "and is ten times as strong."

"Hum-m-m."

For a moment Holmesdale seemed to be immersed in thought, the long fingers of his right hand twisted that lock of hair. Outside, on the airdrome, one of the five-hundred-ton Canadian express ships was coming in on the landing side. At five-minute intervals, night mail planes for eastern points, each carrying three tons of mail, were departing. The midnight express for Paris was out in front of its hangar, and mechanics were swarming over the five-hundred-foot wings, examining the twelve motors set at intervals in its trailing edge. The great compressors that supplied air at sea level density to the airtight compartments looked like so many tiny mountains behind their streamline coverings.

Again Donaldson's eyes fastened themselves on the light representing Number 2. It was at the edge of the Mohave now. Fifteen minutes more would tell the tale.

"How many motors? Funny. All turning up their toes and dying."

"Six," Donaldson told him. "They're made of

permalloy, air-cooled, and operated, of course, by wireless ray. They work from antennæ."

"Got your own wireless power station?" Holmesdale asked, as though totally uninterested in the whole matter. His eyes, mere slits of light beneath their lowered lids, were still fastened on the ceiling, and one huge foot was decorating Jeffrey's glass-topped metal desk.

"Yes."

For many years, now, passenger and freighter planes had been freed of the costly and senseless task of carrying their own fuel. The old gasoline planes with their big tanks were museum relics. Wireless ray, transmitted from a central station, was now the universal fuel.

"Power can't be shut off from there?"

"No, we've got it guarded, and it's operated all right at all times."

"Passengers agree motors went dead?"

"Yes."

"And always in the same spot? Over the Mohave, I mean."

"Five over the Mohave at different points, and two others within three hundred miles eastward. And that's the only section on the whole route

where a forced landing is a lot of inconvenience."

"Examined the motors? Afterwards, I mean. Show anything?"

"Not a thing," Donaldson told him, getting to his feet and pacing up and down restlessly. "Sometimes in three minutes, sometimes in an hour, they all start working perfectly again. Do you know, Slats, it's uncanny. And within the next twenty minutes we may be getting all the details by telephone of forced landing number eight."

"Hum!" Holmesdale grunted, adding his left foot to the weight the desk was carrying. "Seems to me the United ought to be interested in that new metal of your ships. They made any propositions?"

"Plenty," nodded Donaldson.

"Not overjoyed at your competition, eh, what?"

"No, I don't suppose they are," Donaldson acknowledged, "but they're friendly enough. Tried to buy us out, of course, and they've cut their rates, but we're two hours quicker from coast to coast."

"Ten hours for the trip. Hum-m-m. Three hundred miles an hour. Pretty good. Perhaps somebody is out to destroy you—then buy you up cheap—and all that. Anything else happen besides the motors going dead?"

"No. Isn't that enough? I tell you, Slats, the people won't patronize us now because they can't be sure they'll get where they're going!"

"Right enough! Right enough. Got reports handy? From pilots of ships that went down, I mean?"

"Sure. They're all ready for you."

Jeff Donaldson reached into a drawer of his desk and handed Holmesdale a sheaf of typewritten reports. Holmesdale scarcely moved. He scanned them with lightning-like rapidity, holding them high in the air and looking almost straight up at them.

Donaldson's hand reached for the wireless phone. He had an almost ungovernable impulse to call up Potty Bates, chief pilot on Number 2, but finally he decided not to. He mustn't be a nervous old woman about this. Potty would phone him if everything wasn't going well.

Outside, the 11:30 express from San Francisco was dropping into the airdrome exactly on time. Donaldson drew a sigh of relief, and then grimaced.

"Good night!" he thought. "It's a fine how-do-you-do when a transportation line feels relieved every time one of its ships gets in safely!"

The passenger list was only seventy-two on the huge monoplane, he knew, and there were only forty-eight people traveling westward on Number 2. With his eyes on the moving light, he unconsciously drew his hand across his forehead wearily. A week more would tell the tale. Independent would either be cooked or back on its feet.

Mr. Reginald Holmesdale gave vent to a loud and explosive snort.

"The United ships have the same kind of motors and power, haven't they?" he inquired casually.

"Yes."

"Anything happened to any of theirs?"

"Not that I know of. But listen, Slats, it's an obvious thing to think that the trust is trying to break us by damaging our record. I know Sam Munson, their G. M., and the whole works. I don't believe they're meddling with us. Anyhow, it isn't so important *who's* doing it. The mystery is *how* they're doing it. Gosh, Slats, figure it! Six electric motors going dead for no apparent reason—all of 'em in the same region. That's *mystery*, boy!"

"Very interesting. Who's Bates, this pilot of yours?"

"Why, he's an old-timer. I've known him for

four or five years. Steady, reliable cuss. Sort of quiet and some people think he's sullen, but a good guy. And a scientist of parts, too."

"This report says that a Patterson flies with him. Does he always do it? Relief, I mean?"

"Usually, yes."

"Ever notice that Bates was pilot on five of these forced landings, and was riding in the plane a sixth time without actually doing the flying?" Holmesdale inquired mildly.

He tipped his head slightly to meet Jeff's gaze.

"Yes, I have," Donaldson confessed. "But Potty Bates and Patterson, too, are as trustworthy as you are. Why, Potty's working on a new electric fog instrument that will be accurate to an inch—he's almost got it perfected. He's turned down offers to leave Mr. Farley for the United about once a month for the last three years. He worked with Farley on this new metal. He's a whiz."

"Hum, I see. Dog-gone funny. United planes, Los Angeles and Frisco, cover same route you do, don't they?"

"Exactly."

"Too obvious," murmured the detective. "Too

obvious to suppose the United is behind it. Now supposing——"

The little light on the phone close to Jeff glowed as a soft buzzing came from it. It was one of the office phones.

"Hello," he said, his eyes on the swarming airdrome.

There were easily two thousand people, between passengers and friends who were seeing them off, swarming around the Paris plane. Ticket takers for the six midnight expresses leaving for various places in Europe and South America were busy as long lines of people filed continuously through the passageways leading from the huge electric elevators.

High up above, a little sport plane, its cut-out open, rocketed through the sky making a terrific noise. These college chaps and their tourabouts were a nuisance since the invention of the rocket plane, he reflected subconsciously, and they made an unearthly noise.

"Mr. Donaldson?" came the chief night clerk's voice over the phone. "Mr. Munson, United Airways, is here and wants to see you."

"Put him on the phone," Jeff directed, conscious of the fact that his heart had skipped a beat.

Why was the most prominent aërial transportation man in the world coming over to see him at close to midnight?

"Hello, Jeffrey," came a heavy, hearty voice over the wire. "May I come up?"

"Sure. What's the trouble?"

"Plenty. Our motors are starting to go dead over the Mohave, just like yours, and by all that's holy, you and I have got to see what's what! These police are about as much good as a raincoat is to a drowning man. I've got some things I want to talk over with you."

"Come right up," Jeff told him, and suddenly a vast sense of relief swept over him.

He had never admitted it to himself, but the mere possibility of the huge transportation trust's deliberately setting out by unfair means to squash the rising little independent company had been like a horrible specter in the background of his mind.

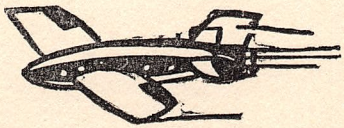
"Sam Munson is on his way up," he told the lounging Holmesdale. "United ships are going to pot as well as ours, and he's got something up his sleeve. The United can get anything they want;

so if the three of us work together we may get somewhere."

"Yeah. Anywhere," mumbled Holmesdale. "How can a chappy get a sandwich around here?"

The door of the electric elevator flew open and Mr. Samuel Grayley Munson, recognized as the foremost aërial transportation authority in the world, stepped out. His fleshy face was slightly red and his voice slightly louder than usual as he said:

"Excuse me, Donaldson, but there's something up that's going to knock our whole system of aërial transportation into a cocked hat if we can't put our fingers on it. We've got to work fast." He strode across the room, scarcely noticing Holmesdale. "I tell you, young fellow, there's a new force—a new something in the air that may shake this little world of ours. I've been laughing at you and your stories, but I'm laughing out of the other side of my face now!"



THE TOLL OF THE UNKNOWN

CHAPTER II

THE TOLL OF THE UNKNOWN

FOR a moment there was silence as Jeffrey's eyes stared into the light blue ones before him. That Munson was highly wrought up was obvious, and as the big transportation man wiped his perspiring forehead Jeff was thinking: "Now that the disaster's struck *him*, he's not so sure of himself." Aloud he said:

"We've known it was dog-gone serious for more than a week, and that's the reason I'm introducing you now to Mr. Holmesdale. Ever hear of Reginald Holmesdale, Mr. Munson?"

Munson looked toward the gangling figure that was slowly unwinding itself. His eyes lifted in surprise. Then his hearty voice rang out:

"I'll say I have! How do you do, sir? Are you here in a professional capacity?"

"Quite so. Quite so," mumbled Holmesdale, languidly giving Munson a handclasp that made the big man wince.

"Slats and I have known each other a long time," Jeff explained. "We went through a lot together four years ago. Sit down, Mr. Munson, and help us watch Number 2. We'll see whether it gets across the Mohave."

Munson accepted the invitation to take a chair, and his big body flopped into it heavily. He was more than six feet two, with a mane of prematurely gray hair above a fleshy face that was comely and strong. His nose was rather large, his mouth wide and a trifle thin, his jaw that of a bulldog. In the last ten years he had linked nearly all the commercial aërial transportation of North America into one huge combine. The United freighters, passenger ships, mail and express planes crisscrossed the continent with matchless efficiency, and only Independent Airways, by virtue of Mr. Farley's invention, had been able even to pretend to compete with them.

"What happened to your ships?" Holmesdale asked mildly as he flopped back into his chair with a sigh of relief.

"All motors on the three and four o'clock planes for San Francisco went dead west of Las Vegas," Munson said succinctly. His fingers caressed his closely clipped iron-gray mustache and one trunk-

like leg, thrown across the other one, beat time as though he could not remain quiet.

"Any harm done?" Holmesdale inquired.

Jeff was listening absently as his eyes followed the light on the board. Number 2 was squarely over that vast stretch of sand and greasewood now.

"No, fortunately," Munson said in his deep, soft bass. "Plenty of fields in that country and both got down all right. The motors were dead as a doornail and wouldn't function. Then, all of a sudden, while we were sending help on, all of 'em started to work after exactly an hour's interval on the ground."

He turned toward Jeff Donaldson, and there was something half belligerent in his words as he said:

"Jeff, I thought I'd quit believing in ghosts a long time ago, and to be perfectly frank, we figured Independent was alibiing for poor equipment, but now I think differently. Something's going on that's absolutely new and different."

Donaldson nodded, his lean face brooding and his eyes smoldering as they watched that light.

"Idea strikes me," Holmesdale said gently. "Power by radio beam. Passenger planted aboard. Maybe pilot. Crew. Who can tell? Got some method of cutting off power beam. Some little power gener-

ator, maybe. Maybe some new metal. Who can tell? They ride. When they get ready they neutralize the beam. Power station working O. K. Beam just never reaches ship. Silly?"

"Not silly," Munson said thoughtfully, "but what's their object in tampering with our transportation? Why, man, they could tie up the transportation world! But why?"

"Maybe just demonstrating," Holmesdale said absently, his eyes on the ceiling and the thin fingers of one hand beating a tattoo on the desk. "Then they come round to be bought off."

"That may be it," nodded Munson, absently adjusting his tie. He was immaculately dressed, as always, and looked the picture of big business. "Why, say," he went on, "they could tie the whole world into knots at a moment's notice!"

"Wait a minute!"

It was a clipped bark from Jeff. The wireless phone on his desk that was reserved for communication with Independent ships was buzzing softly, and a light glowed on its surface. As he picked it up he switched on the television, and in a small square case at the back of his desk a picture suddenly took shape.

"Yes? This is Donaldson. Hello, Potty. What's up?"

The eyes of the three men were glued to that foot-square picture. It showed the heavy, rugged face of Potty Bates sitting at his controls and talking into the wireless phone, and alongside it was the thin, eager countenance of a younger man at the second set of controls. The background was made up of countless instruments and levers. It was a picture of the cockpit of Number 2, and it was obvious from the position of the wheel under Patterson's hand that the ship was diving.

"Same thing," came Bates' voice, and in the picture on the wall his heavy face was contorted and his free hand was clenched tight in his excitement. "Every motor's dead, props aren't turning, and we're diving down for a landing. One hundred and fifty miles west of Las Vegas, Nevada, in the middle of the desert."

"How does she look?" snapped Donaldson.

"We can get down O. K. and we're not releasing the compartments. Two minutes more and we'd have had to."

Jeff scarcely knew what he was saying, but he found himself barking into the phone:

"Stick right there whether the motors come on again or not. I'm on my way. Leave the phone on until you land."

"Right."

Not one of the trio in the office said a word. Each was watching that picture in the cabinet with wide, unwinking eyes. They saw Bates lay down the phone and take the controls himself. The two small figures were peering ahead tensely. Bates was handling his controls while Patterson talked excitedly.

Jeff fairly held his breath as the picture danced on the screen. Holmesdale was watching it under lowered lids, his body utterly relaxed, as always, and one bony knee almost up under his chin. The dynamic, heavy-shouldered Munson was crouched forward in his chair as though about to spring.

Suddenly the picture took on additional movement. As though snapped by a single spring, both Bates and Patterson threw up an arm in front by their faces. The next second both men were snapped forward, their arms protecting their heads.

"A wreck!" Jeff shouted, and suddenly his face was white beneath the tan, and his dark eyes were blazing hotly.

The next second Bates straightened on the screen

and picked up the phone. Patterson was bent forward weakly, moving slightly as though to clear his head, and a dark splotch had appeared on his forehead.

"Nosed up in the sand," Bates told him chokingly. "Not much harm done, if any. Are you coming?"

"Right now," Donaldson told him.

"There's no sense to it, chief," Bates told him. "There isn't a thing to find or see. It just happens, that's all. The motors will go on again in about an hour, and we can't keep forty people sitting out here in the desert, taking up their time, until you get here."

"The devil we can't," Jeff told him.

Was it imagination, or did he see in that small-scale picture a worried expression on Bates' face? He hung up the phone, and the picture disappeared as though by magic.

"I want to take a look at that ship and every passenger in it," Donaldson said swiftly as he turned to face the others. "They've got plenty of food and water, and I'm leaving right now!"

"Good!" Munson said, leaping to his feet as though his big body worked on springs. His light

blue eyes were glittering below their bushy, crag-like brows. "And I'm going with you!"

"Me too," Holmesdale said languidly, and the nostrils of his pointed, fox-like nose wrinkled humorously. "Professional ethics, and all that sort of thing."

"We'll take my new rocket," Donaldson told him as he picked up one of the hangar phones, "and we'll be there in five hours. Just between the three of us, there are a couple of things I don't like. Potty Bates should never have tried a landing in the Mohave without letting the compartments go and reassembling on the ground. Second, he doesn't want us to get there, which may mean that there's something or somebody aboard—"

He stopped himself abruptly. That was an unforgivable and dishonorable thing to do, to cast suspicion on a man like Bates, with no more justification than Holmesdale's theories and the slight evidence of the television apparatus. Munson looked at him oddly as the taut young general manager poured his orders into the phone.

"I see what's on your mind," Munson said slowly, "and maybe you're right. If we find anything on your ship, it'll probably be the same thing that's

responsible for ours going bad, but the question is, what man have *I* got to look out for?"

There was no time to answer that oratorical question. Jeff called up his assistant to take his place, communicated with the dispatcher, and put his affairs in order for a full day's absence. Munson strode up and down, his gray head bent in thought, and Holmesdale pottered around, whistling softly and constantly pushing back that troublesome lock of hair.

In three minutes they were in the elevator going down to the airdrome level. In another moment they were trotting down the runway on the roof of the solid row of hangars at the eastern edge of the airdrome. Metal steps, at intervals, led down from the roof to the airdrome level.

An eighth of a mile down the hangars—most of them United property—was the headquarters of Independent Airways. Jeff's rocket plane had already been transferred to the take-off side of the quarter-mile square landing surface.

On the landing side there were closely spaced slits crisscrossing the surface. Those slits acted as so many vacuums, pulling a landing ship to a speedy stop with magic smoothness.

The rocket was ready on the line when they arrived. It was a small monoplane with a cabin big enough for four people. The rear of the fuselage was like the tapering end of a torpedo. Its system of propulsion was similar to that which sent a rocket skyward—a series of explosions that pushed the ship ahead at unbelievable speed. It was made of the special Farley metal, and its wing surface was barely sixty square feet because of the overplus of power.

Jeff had discarded his coat for a leather jacket. He was hatless, his dark hair tossed by the breeze that swept across the elevated runway. It was shortly after midnight. From below the airdrome, which covered a little city four blocks square, there came the dim music of an orchestra. That huge flat surface was the roof for four huge hotels, dozens of stores, restaurants, and theaters—a self-sufficient community for visitors to New York. Artificial sunlight illumined the many courts of the structure, and a man could live below for years without exposing himself to the open air. Winter cold and summer heat alike were almost unknown to the dwellers below the airdrome.

In a moment the three were settled in the com-

fortable cabin and the tiny electric motor that worked the taxiing propeller was humming softly.

Jeff taxied up the runway in front of the line and took his place in the procession of ships that were taking off. At the opposite end of the airdrome a huge electric artificial wind machine sent a steady, powerful current of air sweeping across the surface against each ship that took off, to help it take the air quickly.

As his turn came, Jeff pressed the slot release on his wings and, as though by magic, their lifting surface was doubled. He swung into place, turned off the little taxiing propeller and pressed the first of six buttons on the stick. Low, muffled explosions from the rear of the ship got it under way. He pressed button number two and then number three. The explosions became like the roll of a drum and the squat little monoplane fairly leaped ahead.

It was in the air within fifty feet. Button four, and he had withdrawn the slots and the ship was streaking toward the sea. Button five, and it was climbing like an arrow at four hundred and fifty miles an hour as he banked westward. He pressed the last button, and at five hundred miles an hour the ship was darting upward at an angle of forty-

five degrees. It would do better when it reached the altitude at which he could open the muffler and give the noisy ship the benefit of full power.

He turned to his companions. Munson was smoking a cigar, his hat pulled low over his eyes. He was apparently deep in thought. Holmesdale, his nondescript felt hat on the back of his head, had produced a harmonica from his pocket and was playing it softly.

"We'll go to thirty thousand," the intent young pilot told them, "and then fan it. I've just got a hunch that we're not on a wild goose chase, and the quicker we get there the better."

Holmesdale removed the harmonica from his mouth.

"Me too," he stated. "This ship was not made for my legs, and I miss my sleep."

The trio relapsed into silence. Jeff himself was strained forward as though to help the ship along.

As the rocket drilled its way upward between lines of traffic, great searchlights swept the sky from horizon to horizon, making the night almost as light as day in certain sections of the sky. Multicolored beacons pointing out various aërial courses enabled experienced pilots to know their exact

location at all times without reference to a map. Jeff knew every important beacon in the United States and scarcely needed the help of the thousands of signs spelled out in electric letters, designating towns and cities.

They reached the transcontinental level between fifteen and twenty thousand feet and sped on upward to twenty-one thousand. The small propeller on the side of the airtight cabin was constantly compressing air so that the pressure within the cockpit was that of sea level. The passengers were very comfortable.

Jeff lifted the radio phone from its hook on the instrument board before him. He'd have a chat with the various pilots of Independent ships just to pass the time away, he decided. He touched the little lever that put him on Number 2's wave length. In an instant the little television box flashed a picture, and the tall young pilot's body stiffened and his eyes widened as he saw Potty Bates at the controls and Patterson alongside him. They had left the ground and were flying Number 2!

Neither Munson nor Holmesdale said a word. Holmesdale played the harmonica softly but his eyes were slits of light that never left the television

box. A guttural exclamation escaped Munson and he was gripping the sides of his chair until his knuckles were white.

"This is Donaldson," Jeff snapped into the phone. "I thought I ordered you to stay on the ground!"

"Can't," was the curt reply, and on the television screen Bates' bulldog jaw was set. "Got a passenger that's pretty sick, and I can't leave her in the desert!"

"Couldn't call in an ambulance, I suppose," Jeff said very slowly, but his face was drawn.

"Ship is O. K. and there seemed no reason for it. It would give the line a worse black eye than ever if we didn't get a sick passenger through ourselves," Bates said stubbornly.

For a moment, words fairly fought for utterance from Jeff's tight lips, and there was a dangerous light in his ordinarily dancing brown eyes. His face had strength and decisiveness, and now it was overcast with a blackness that seemed almost cruel. Then he said slowly, and with effort, "O. K." and hung up.

"What do you make of that? Funny, huh?" Holmesdale remarked casually.

"I'll tell you what I make out of it," exploded Munson. "Somewhere in that ship is the explanation of that forced landing. Bates knows what it is and was afraid you'd find out if he stayed out there."

Jeff straightened as though to throw a weight off his shoulders.

"You can't be right," he said steadily, his eyes staring forward unseeingly, "but I'm afraid you are. I didn't dare order him back for fear he'd know we were wise."

Munson's teeth clenched over his cigar as he grated:

"Now all *I've* got to do is find who the Bates is in *my* company."

THE TREACHEROUS TWO

CHAPTER III

THE TREACHEROUS TWO

THE hours dragged by as the rocket ship, carrying its three taciturn passengers, hurtled along four miles above the earth at six hundred miles an hour. The cut-out was open and conversation was not easy, but even if it had been, Jeff wouldn't have cared to talk. Lovable, turbulent Potty Bates and the slim, eager Patterson who was Jeff's devoted worshiper—it didn't seem possible! It would just about break Mr. Farley's heart.

He endeavored persistently to divert his mind from thoughts of the two pilots, and from the larger forces that must be back of them. His eyes scanned the air constantly but almost unseeingly as he sent his ship roaring through the night. They passed transcontinental ships every few minutes, and down below at various levels the interstate commerce of the United States hummed by in almost continuous lines of aërial traffic. Freighters, express

ships, passenger planes, privately owned ships, tiny little gnats of the air, and stately Juggernauts that went by in a blaze of lighted windows—myriad planes were abroad this calm summer night.

Two hundred miles south of Cheyenne they hooked up to a service dirigible to take on rocket fuel. It was funny, Jeff mused, to think that sixty years ago those big bags were used to carry passengers; almost as funny as it was to remember that there had been days when the country was divided into cities, towns, and farms. Now the United States was divided into vast, efficiently organized areas. Most of the country was one continuous town, concentrating here and there into great business centers.

One state alone—Minnesota—produced the dairy products for the entire nation. The night's milking was pasteurized, refrigerated, and transported by thermos planes to both coasts in time for breakfast the next morning.

Missouri and the Dakotas produced all the grain, and with improved soil treatment it wouldn't be long before one state would provide enough grain for the hundreds of million people in the United States! Iowa was the livestock state.

Air transportation had done it. Why—even a small item like bananas demonstrated the miracle of the air. History books said that back in 1930 people used to eat store-ripened bananas. Jeff chuckled. Picked green and sent on a long ship journey! Now bananas were allowed to ripen on the trees, in South America, and were sold in stores of the United States two days after they were picked. He thrilled to think that he was a part of the great transportation development.

As the Mohave drew closer, Jeff found relief in trying to imagine how the country must have looked back in 1930, when people could travel sometimes fifteen or twenty miles without coming to a town. Now entire states were vast populated districts.

As the ship passed Las Vegas and drummed on for Los Angeles, Holmesdale apparently fell asleep, his disreputable felt hat low over his eyes. Munson dozed, a half-smoked, unlit cigar clamped between his teeth, while Jeff's mind ranged in a thousand different directions.

Somehow, the weight of the world seemed to press his shoulders that night. His mind was fagged from continuous efforts to probe the mystery that

threatened his company. He could not comprehend the potentialities of whatever scientific discovery his enemies were using. He couldn't think Potty Bates guilty. With a mental shrug he gave it up, and yielded himself to the rolling explosions of the motor and the monotony of the desert. He was almost an automaton as the ship at last hurtled over the mountains into the sea of electricity that was the West Coast. As far as he could see were lights and beacons.

The terminal was a square of light set high above the illumination below, like a pier in the middle of the ocean. Five hours from New York to Los Angeles, with a stop-off for fuel. That wasn't so bad, although he had made it in less time when the wind was with him.

He dropped into the huge airdrome rimmed by hangars, on the landing side, coming down at less than thirty miles an hour with the aid of his slotted wings. The ship stopped within twenty yards as the vacuum slits sucked on the tires. Two mechanics came out from the Independent hangars as he taxied to the line.

"Mr. Bates and Mr. Patterson are waiting for you in the office," one of them said respectfully.

"Huh! So this is Paris!" observed Mr. Holmesdale, stretching lazily.

"You'd better have it out with Bates right now, hadn't you?" came Munson's deep bass as he crawled stiffly out of the plane.

Jeff nodded. After the long strain of the trip he felt that he couldn't wait another instant to confront Potty. There was Number 2 on the line, being serviced and inspected for its return journey. It was scheduled to leave at seven A. M.—less than two hours. Ordinarily it was a heavily patronized run because it connected the West Coast with the Paris plane that arrived in France in time for the beginning of the business day. It was the best service from Los Angeles to Paris—twenty-six hours.

"Know how many passengers are booked for her?" he asked one of the mechanics.

"Fifteen, sir," the squat little mechanic said reluctantly.

His eyes dropped in embarrassment before the startled glance of his chief. Jeff's fists clenched unconsciously at his sides. Fifteen passengers! And ordinarily there would have been five hundred, and three hundred other applicants who could not be accommodated!

"Pretty good break for you, Mr. Munson," he said grimly.

"It has been," Munson said savagely, "but it won't be a couple of days from now if this keeps up. Everybody'll begin to stay home."

"Funny thing," Holmesdale said ruminatively as they started for the elevator that led to the Independent offices. "What's the matter with the police? Haven't got anywhere, eh, what? Silly idea."

"You can't blame them too much," Munson pointed out. "There's been no clue on our ships, at least, and nothing on Jeff's."

"Detectives have made trips without number," Jeff told Holmesdale, "but there's been absolutely nothing to find out. The motors just go dead. But, by gorry, now we know where to start! There's some good reason why we weren't wanted at Number 2 out there in the desert." He turned from the elevator doorway. "Did a passenger arrive sick in Number 2?" he asked the mechanic.

The grizzled little crew man pushed back his cap and looked at his chief in surprise.

"Why, no, sir. Not as I saw," he said. "Every-

body just got off and went about his business as usual."

Jeff's eyes roved from Holmesdale's to Munson's, then back to the mechanic, in grim silence.

"Thanks," Jeff said briefly.

A moment later he led the other two into the glass-enclosed office on top of the Independent hangars.

"Hello, Potty. How are you, Pat?" he said steadily.

Bates got up from his chair as though prepared for a battle. His narrow black eyes, looking almost Oriental in his slightly fleshy face, seemed to have a curious glitter in them, and his mane of curly black hair was belligerently disordered.

"What's on your mind, Jeff, outside of the usual thing?" he said in a high voice that was incongruous with the burly body and barrel-like chest.

Holmesdale was looking him over calmly and his eyes lingered longest on Bates' hands. They were almost as small as a woman's—startlingly small in contrast to his two-hundred-pound bulk. The hands of a craftsman, or musician. There was nothing of the dreamer or the scientist in Bates' face, however,

at the moment. Jeff could fairly feel the hidden volcano beneath the pilot's controlled exterior. Potty was nervous, as though he sensed what was coming.

Over to one side, taut and white-faced, was young Patterson, slim and blond, his hands beating a ceaseless and noiseless tattoo as he leaned on the desk.

"Potty," Jeff said slowly, "you know Mr. Munson, and this is Mr. Reginald Holmesdale. Mr. Bates and Mr. Patterson, gentlemen."

Patterson wet his lips and said nothing, but his eyes remained glued to Holmesdale's fox-like face.

"So, you're going to try to get somewhere with this mystery, are you?" Bates piped shrilly to Holmesdale. "Well, more power to you."

"Thanks, old chap. Awfully good of you," Holmesdale ejaculated.

"Let's get down to business," came Munson's heavy voice. He was planted on legs that were spread slightly apart, as though setting himself for an onslaught.

Jeff's throat was dry and his heart pounding as he forced himself into the action he hated.

"Potty," he said slowly, "why didn't you and Pat stay out in the desert as I ordered you to?"

Jeff knew the terrific temper of that high-strung pilot before him. Bates was standing with his arms folded and Jeff saw those long, slender fingers tighten around the upper arms like two vises.

"I told you why," he said, his eyes roving from one face to another, and his whole attitude that of a cornered animal estimating the enemies that surrounded him.

"Who was sick?" Jeff went on quietly.

"A woman."

"Still ill when she got here?" Jeff asked. His gaze never left Bates, and he saw thunder and lightning gathering in the black eyes of the man before him.

"No. Felt well enough to get off and go home with her husband, under her own power," Bates said, and there was something unpleasant in the way the words were flung at his chief.

"Who was she?" glared Munson.

"How should I know? She was a little blonde whose husband was a lawyer from San Francisco."

"Too bad. Sick in the desert. What was the matter? Touch of nausea?" Holmesdale asked with his gentle disconnectedness.

"I'm no doctor!" snapped Bates belligerently.

"That's enough out of you!" Jeff's words were

harsh; the turbulent pilot's obvious hostility had set him afire. He forgot that Bates was co-inventor of the Farley metal, forgot everything as all the strain of the past weeks snapped and loosed his accumulated anger. He was like a slim streak of fire, eyes blazing and jaw outthrust.

"You've been aboard in almost every one of those forced landings. We've found out pretty certainly that the explanation of them is to be found within the ship and not outside of it. It's up to you, Bates, to cut out this lying and come across."

"Be careful what you say!"

The huge Bates took a step forward and now there was no effort on his part to hold himself in. Rage mounted in the brilliant pilot-inventor's face.

"Trying to pin it on me, are you? You and your trick detective and Mr. Samuel Grayley Munson! Why, listen, you kid, I—"

"Oh, I say, now! Pipe down!" Holmesdale cut in, and suddenly his voice was as loud as a foghorn.

Bates turned on the lank Holmesdale.

"I'll pipe down when I'm ready. Now listen, you two-for-a-cent Sherlock Holmes, and you, too, Donaldson. I'm quitting! Get that? Why, the idea of you guys beating it across the country to tell me

that I'm a crook! Donaldson, I ought to take you and break you in two!"

An interval of icy calm seemed to come over Jeff Donaldson. There was something cold and hard about his wrath now, and he felt not a tremor of regret as his eyes burned into the man who had served Independent so long and efficiently.

"If there was anything that could completely back up our judgment it's the way you're acting, Bates. I guess you won't fly Number 2 back, I'll fly it myself."

"Count me out, with Potty," Patterson said, his voice trembling with anger. "Who made your company? Potty Bates! Who are you? A kid that's licked Mr. Farley's boots—"

"You're both fired," Jeff cut in with that same icy self-control. His words were brittle. "I don't know whether you're guilty or not, but—"

For a moment he was about to add something about the police, but he didn't utter the words. If they were guilty there was no place in all the world where they could hide. Whatever was going on would not be stopped by their failure to fly, for there must be many confederates, and Bates had not always been aboard the ship that had been

forced down. Munson's ships, too, were being tampered with now. It was a question of investigating every passenger closely. From now on he'd fly his own ships until the mysterious thing happened to him. Then he'd act. Meanwhile it was unthinkable to have Bates and Patterson, both defying his authority and under suspicion as well, as a part of the organization.

There was absolute silence in the lofty office, a silence pregnant with angry passions. Munson chewed on his unlit cigar. Bates stood there, fairly shaking with ungovernable fury, and young Patterson seemed incapable of speech or movement. His anguished eyes rested unwinkingly on the older Bates, as though ready to follow him in whatever he might do. Jeff, still in the grip of the icy wrath that had been generated by Bates' inexcusable attitude, finally said slowly:

"I'll fly Number 2 back to-night myself and take your run from now on, Potty."

Bates looked at him for a moment and it seemed to Jeff that his eyes were like those of some maddened wild stallion, as it felt itself caught in an inescapable stockade. Suddenly they darted toward the stalwart Munson.

"What do you happen to be doing here?" Bates fairly snarled. "The lion lying down with the lamb, eh?"

Holmesdale, apparently without interest in the proceedings, nevertheless was scrutinizing Bates and Munson lazily.

"Because a couple of our ships came down the same way. Jeff and I are working together on this."

"Huh?"

For a moment it seemed that every vestige of resentment and wrath had been shocked out of Bates. His jaw literally dropped and his eyes suddenly turned into wide pools of pure astonishment.

"Your ships came down? You're working with Donaldson?" he articulated with difficulty.

"Sure. What of it?" snapped Munson.

There was a moment's silence again, and then it seemed that Bates came to himself. The smile on his face was a sneer as he said:

"Come on, Pat. We're through. You know where to find us, Donaldson, if you want us, back in New York."

Before anyone could say a word he had strode to the elevator, the door of which was still open. He was followed by the dazed Patterson. The boy's

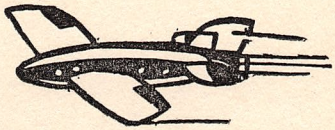
face was white as a sheet and it seemed that he was barely able to comprehend the full extent of the disaster that had overtaken them. Bates turned at the elevator door, his hand on the lever.

"You're working with Jeff, are you?" he asked slowly, and then he threw back his head and laughed mirthlessly as he slammed the door shut.

"Now what does he mean by that?" queried Munson, his heavy, comely face dark with anger.

"A dirty laugh. Very dirty laugh," commented Holmesdale casually.

He had his harmonica out, and as Jeff, his mind a chaos of conflicting thoughts, sank into a chair, the strains of "God Save the King," played with a touch of American jazz, resounded through the office. Mr. Reginald Holmesdale was engaged in thought.



SINISTER STOWAWAYS

CHAPTER IV

SINISTER STOWAWAYS

IT WAS just an hour and a half later when Number 2, with Jeff and Holmesdale seated side by side in the pilot's compartment, was rising over Los Angeles bound for New York. Back in one of the passenger compartments Munson was sound asleep, and Holmesdale looked as though he were about to fall asleep as he sat slumped behind his unused control wheel.

That hour and a half had been a busy one, Jeff reflected, as the ship climbed noiselessly upward to the transcontinental level. He had enlisted the coöperation of the police and had investigated every one of the fifteen passengers before the ship had left. All were California residents, as it happened, and not one iota of suspicion could logically be directed at them.

As he sent his ship winging upward like some silent ghostly monster of the night, the young general manager was reflecting, "That's what it's

bound to be—some method of cutting off the wireless beam at any moment they want to. They choose the Mohave country because that stretch will cause the ships more trouble in landing."

There had been no time to investigate the innumerable cubbyholes and crannies of the Farley liner before taking off. Jeff almost hoped that the engines would stop. He had a little hunch that perhaps hidden away in some unobtrusive corner of the ship there was a tiny, new chemical invention which, when in operation, neutralized the power beam. Back in New York they'd strip the jinx ship apart and go over every inch of it.

As he reached twenty thousand feet and set his course for New York, he was not too tired or worried to feel the surging thrill of pride that a Farley liner always gave him. The monoplane was built of the Farley metal, had a span of three hundred feet, and really consisted of nothing but one huge wing forty feet thick just back of its leading edge. The six fifty-pound electric motors were set in the trailing edges of the wing and drove pusher propellers. There were two rudders, one under each wing tip, and the elevators, horizontal stabilizer, and vertical fins were attached to the ship by an

uncovered framework. There was no fuselage at all. The transformer that serviced all six motors was set squarely in the middle of the ship, a few feet behind the glass-enclosed pilot's cockpit, which thrust itself from the center of the leading edge of the wing.

There were four levels within the wing, like decks, each divided off into compartments. There were bunks for the mechanics and crew, two spacious dining rooms, a library, and all the other conveniences of luxurious travel.

Due to the lightness of the motors and the Farley metal, the liner weighed only one hundred tons and could lift fifty tons more without loss of speed or efficiency.

Jeff's face twsited into a bleak grin as he thought of the empty craft he was flying. The catwalks, the smoking room, and compartments behind him were almost deserted. Independent was close to death.

As they crossed the mountains and sped silently out over the Mohave he leaned forward tensely. Now they were approaching the danger zone. Was he wrong, or was the power of the motors really lessening? He looked down at his instrument board

and saw a warning light glow, the right-hand light of two on the board. With his rudder he swung the ship slightly in a more southerly direction. In instant answer the air-speed meter picked up to three hundred and fifty miles an hour from a mere two hundred and fifty. He had veered slightly off his course and the power generated by the radio beams had lessened. They were so directed as to have maximum efficiency only when the ship was exactly on its course.

Ship after ship passed them, some aglow with light, others dark freighters making only one hundred and fifty to two hundred miles an hour. They flitted through the darkness like so many huge bats, with only a few lights on them.

A few pilots from other ships called up over the radio phone for a chat to while away the time, but Jeff was in no mood to talk.

He shook his head to Holmesdale's offer to take the ship. The lanky detective seemed almost to be asleep, but Jeff knew better. Slats, too, was sitting there, waiting and wondering.

The ship's crew, from the steward to the last mechanic, was restless and distraught, and the man in charge of the transformer down the passage

from the pilot's cockpit was pacing around the piece of machinery nervously.

Las Vegas passed behind them and they were over the great flat desert, angling northeast for Salt Lake. Now the earth below showed signs of thickening population and soon, from Salt Lake eastward, they would be flying over one continuous town.

Nothing had happened and Jeff was aware of a feeling of disappointment. He had been hoping for a showdown. At the same time he was thinking, "Apparently Number 2's all right as long as Potty Bates isn't flying her!"

They were close to the sand mountains now, flitting silently through the gloom at almost four hundred miles an hour. Jeff set his wheel and rudder and slouched back in his seat. They weren't quite out of the danger zone. In fact, now with the sand mountains below, they were crossing the last and most dangerous sectors of the five-hundred-mile area in which all the forced landings had taken place. Two minutes more and they would be absolutely safe.

"There they go!"

It was a wild shout from the overwrought Jeff,

and alongside him Holmesdale suddenly snapped into taut attention. Without warning every motor had suddenly ceased to perform.

It was no time to think of explanations now, or to investigate. In a second Jeff's eyes had swept the terrain beneath them. He could not take a chance.

"We've got to parachute 'em down, Slats," he said very quietly, and Holmesdale nodded.

There were shouts from the interior of the ship and the transformer mechanic, his face haggard, was leaning over them.

"Going to try to bring her down, sir?" he shouted, looking wildly at his chief.

"No. We'll float 'em down," Jeff told him with a calmness that every crisis brought, "and then, right on the ground, we're going to take this baby apart and see what makes it tick. Get back to the transformer."

The man nodded and ran down the walk.

Jeff lifted one of the combination ear and mouth pieces alongside him that connected with each of the five separate sections of the ship.

"Number One," he snapped.

"O. K., sir," came the voice of the crew man in charge of that section.

"We're floating 'em down. Stand by," Jeff directed.

Like the captain of a vessel, the pilot of an air liner was in sole charge. Down the line he called, communicating with each of the five compartments. When Number Five signified that they were ready, as the others had before, Reg Holmesdale unlocked a lever underneath the thronged instrument board. Jeff's hand crept to the lever and threw it down one notch. As though by magic, two fifty-foot sections at the tips of each wing dropped from the ship. Each section included a motor. A split second later the top surface of each section collapsed as the metal panels folded in on top of each other and a huge, steel-ribbed umbrella snapped open. Gyroscopic motors started to whir on each section, and very gently they floated earthward, each section commander handling his craft with sure skill.

Again the lever went down and two more sections left. Each was completely enclosed, and it would have been possible for a person to be asleep in one of the compartments and not know what had happened.

Then Jeff folded back the top surface of the center section by pressing a button. He released the

big 'chute that had been underneath the metal. For a brief second he found time to feel a warm pride in the efficiency of his crew. It was a mere matter of closing doors between sections to have them ready to float down, of course, but somehow the speed and precision with which the great air liner had disintegrated into those well-controlled, slowly dropping sections, was like a bright spot in the disastrous record of Number 2.

Back of him the transformer mechanic had the gyroscope working to get the section on an even keel, and Holmesdale had his long, thin neck thrust over the side of the cockpit.

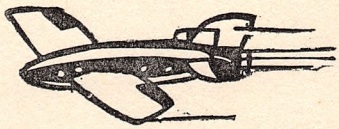
"Well, strike me pink!" he ejaculated suddenly. "Where are those glasses?"

There was no vagueness in his words or attitude now. His body was tensed with the eagerness of a highly strung race horse. Jeff thrust the powerful night glasses into his hand as searchlights on the under surfaces of each section started to glow into life and bathe the ground with light.

Holmesdale's head snapped around and suddenly those mild grey-blue eyes were like two pieces of ice on which sunlight was playing.

"Take a look if you don't believe me," he said,

a new timbre in his voice. "Two chappies just dived out of one of those sections—Number 3, I think—in individual parachutes, and they're none other than our friends Bates and Patterson! Stowed away on us, that's what they did! So pick up that phone, my boy, and let's get the police!"



THE WORLD AT BAY

CHAPTER V

THE WORLD AT BAY

JEFF'S hand reached for the phone in automatic obedience to Holmesdale's suggestion, but as he picked it up he hesitated.

"Listen, Slats," he said swiftly, "why do that? The wind is carrying them a long distance away, isn't it?"

Holmesdale peered over the side.

"Yes, they're three thousand feet below and being carried east very fast," he answered. The metamorphosis in the languid detective was uncanny. He had changed into an alert, taut young man, whose mind and body were geared to highest efficiency.

"Then listen," Jeff went on. "They believe that nobody knows they were aboard. They'll land twelve or fourteen miles away from us. Let 'em have their freedom and do what they want to do. We'll watch 'em without their knowing it. We'll get the police. We'll tell 'em to use an ordinary

ship and just keep an eye on Potty and Pat to see what their next move is."

"Right you are," Holmesdale agreed instantly. "In fact, several thoughts strike me."

He fell silent as the section floated downward, and Jeff, who knew him so well, didn't attempt to talk.

Back of him, the transformer man, whose duties were to handle the parachute in cases of emergency like this, was manipulating the levers that changed the angle of the huge 'chute. By sideslipping, he was able to counteract the breeze and send the section downward in a straight line. The other sections were only a few hundred feet apart from each other, falling under absolute control.

The steel-ribbed 'chutes could be manipulated with great accuracy. One lever bent the steel ribs in any direction desired, thereby changing the angle of fall to suit the whim of the pilot. Another lever worked the extensions along the edges of the 'chute whereby concealed steel rods and extra silk could be released to increase the area of the 'chute. This operated to slow up the speed of the drop. A third lever opened a vent in the center of the huge parasol to increase the speed, if desirable. Together

with the gyroscope, the system of levers gave the operator absolute control of the dropping section.

Jeff took time to notify the Los Angeles and New York headquarters of what was happening, and to broadcast a general radio warning to any ships in the vicinity to watch out for the falling sections and avoid running into them.

The pilots of passing liners sent a continuous series of questions through the phone to ask whether help was needed, but Jeff answered always in the negative.

Two police ships circled around the various divisions of what had once been an Independent liner, and to their captains Jeff explained the situation over the phone. Before he had dropped to the five-hundred-foot level he knew that Bates and Patterson would be under surveillance from then on.

As the center section came closer to the ground the mechanic gradually increased the area of the parachute. The steel ribs of the 'chute grew in length as the concealed tips gradually thrust themselves forward, carrying extra silk with them, and the section finally settled to the sandy ground as lightly as a gull on the surface of the ocean.

Jeff's section was last to land. The other sections

dotted the ground over an area a quarter mile square. Passengers and crew men had already emerged, and the first to greet Jeff and the silent Holmesdale was Mr. Munson.

"Pretty lucky," he said as he looked around at the low rolling sand hills.

"What do you mean, lucky?" Jeff asked him.

"Why, all the sections came down in level spots," Munson pointed out. "There's many a stretch around here where you wouldn't find it so easy to reassemble."

"That's due to the efficiency of the Independent crew," Jeff told him with a fleeting grin.

"The motors are working again, sir!" an excited mechanic shouted as he ran toward his chief. "We just tried out Section 4 and the prop turned right away!"

"I'm not surprised at that," Holmesdale said. "The enemy were satisfied when they saw us break up in the air."

Excited passengers were now swarming around the trio of men, and Jeff yelled for silence. The fifteen travelers fell silent as he said, deliberately:

"You've all been reading the papers and you know that this is not an unusual emergency. Fur-

thermore, whoever our unknown enemies are, they are not concentrating exclusively on Independent liners. This is Mr. Munson, here, general manager of the United, and the same thing is happening to his ships. I can assure you all that the ship will be reassembled within twenty minutes and we can resume our trip. Unless these unknowns depart from their usual method of procedure, nothing more will happen. They seem satisfied to bring us down just to cause trouble, and then to allow us to go on our way."

A storm of questions followed, which he answered as best he could.

"No use of thinking much about any of these passengers," Jeff reflected subconsciously.

If there was anything to their theory about cutting off the radio power beam, the presence of Bates and Patterson aboard almost certainly diverted suspicion from anyone else.

"Booker!" he shouted finally, and the chief mechanic pushed his way through the group. "Have the men reassemble right away."

"Yes, sir."

"There's no use inspecting the ship out here in the desert, at that," Jeff said to Munson and

Holmesdale. "If there's anything funny about it we can find it better in New York."

"I want to talk to you two," Holmesdale said, pushing the lock of hair back from his forehead.

The passengers, talking excitedly, made their way to one side as the mechanics started to reassemble the ship.

Four concealed wheels, cushioned with tires more than a foot wide and nearly as thick, had been let down from the bottom of each section before the landing. The tiny auxiliary transformers in each section were switched on and the propellers of each started to turn. Section after section taxied into place at the edge of a long flat stretch of sand, guided accurately by men who handled the wheels.

Finally the six separate sections were standing side by side, only inches apart. Bit by bit the mechanics eased them together with delicate handling of the wheels underneath them and then the pins, which joined them together and which had been released on the break-up by electricity, were put into place. The ship, being of metal and built to ten-thousandths-of-an-inch accuracy, could be assembled as easily as a bolt can be screwed into its nut.

Meanwhile Jeff, accompanied by Holmesdale and Munson, had walked to the top of a low sand dune. Up above, the occasional dark ships, like monsters of the night, passed them as the commerce of the air went on, and there was an almost continual bath of light from searchlights as the passing ships investigated the happenings on the ground.

It was fairly cool, a continuous breeze sending the sand swirling around the little slope and ruffling the hair of the three thoughtful men.

"Well," Jeff said slowly, "I got my wish to see what happens, and now I'm no further ahead than I was. It seems a cinch to me that there's some method worked from inside the ship itself to cut off the power ray."

"Listen," Holmesdale said, "we're all three interested in cleaning this up. Right? Mr. Munson, you're interested in coöperating with us?"

"You're in my employ as well as Independent's, as far as I'm concerned," stated Munson.

"Now where do we stand?" Holmesdale went on, and it was as though the even sureness of his words were a mirror of the clocklike regularity of his mental processes. "Approximately ten ships at ten different times have suddenly had their motors go

dead. The logical explanation seems to be what Jeff has just stated—a method of cutting off the power ray. Not only were Bates and Patterson aboard the majority of the ships that went down, but to-night they seemed to indicate a degree of guilt by their attitude. Furthermore, they ended up by stowing away on this ship, and the same disaster happened again. Bates is more or less of a scientific marvel, and in addition, a temperamental, unbalanced sort of a chap who is hard to figure and who might more easily be capable of a plot of some sort than the average man. Right?"

Jeff nodded and Munson grunted an assent. Holmesdale went on:

"All these things have happened in the desert section between Salt Lake and Los Angeles, within a radius of five hundred miles, and this is the section where forced landings are most dangerous and troublesome. This indicates that they can absolutely control their device, whatever it is, as they wish. Taking that for granted for the moment, we've got to come back to what motive there would be for Bates and Patterson, providing they have the device, or the use of it, to engage in this sort of thing."

"That's easy," Munson stated, his eyes on the assembling process going on two hundred yards away from them. "You come back to money, inevitably. They're getting plenty for this from somebody, or expect to get plenty in the future. Why, listen, boys, do you know what we may be up against?"

"Of course," Holmesdale cut in calmly. "There are only two explanations for the use of this infernal invention. One is that it's in the hands of private parties who are proving their power and expect to be bought off for a huge fortune. The other is that some big power wants to cripple the United States by putting its commerce at a standstill preparatory to—who knows what?"

"Exactly," Munson said. "And yet the way they're going about it is surprising. They must be lunatics. They've got a knife on—on the throat of commerce, and if they decide to bear down, goodby commerce. In less than two weeks, gentlemen, if this keeps on, every person who can possibly stay at home will do so, and our business will be ruined!"

"That's the least of the evils," Jeff interrupted. "Why, man! They can stop the movement of express, freight, food! Paralyze the nation!"

"Do you know what I think?" Holmesdale said. "A foreign power may be trying it out, to be sure, but a power wouldn't work in this small-time, restricted way. They'd have agents on all ships and do the job quickly and thoroughly. More likely, this device is in the hands of private parties and their aim, maybe, is to be bought off for a huge sum, or to buy the existing transcontinental lines for a song and then bury the device forever. There is still a third theory that I hate to think about—that the inventor of it is stark, raving mad and is just having his maniacal fun."

"Do you mean that Bates is nuts?" interrupted Jeff.

"If he's the inventor. Perhaps one of these new Equalists is behind it—you know, the chaps who want to start a new world by destroying the old," Holmesdale pointed out. "Bates may be the inventor, or then again he may just be in the pay of the inventor. In the third place, he may have nothing whatever to do with it!"

"Huh!" grunted Jeff, surprised. "It seems almost open and shut to me!"

"Look at the other side," Holmesdale said evenly. "Suppose Bates and Patterson are guilty.

Would they take the desperate chance of stowing away just to bring down this one particular ship, risking chances of discovery every second, running the foolish chance of being almost inevitably convicted, when they could do as much or more damage by riding as ordinary passengers on any other ship in the country, or having agents do it for them?"

He stopped for a moment and it never occurred to Jeff to say anything. Something was dawning in his mind—a new idea striving to burst through into the light.

"If they were innocent and angry, and had, because of Bates' scientific ability, a theory as to what was happening, then I can understand their stowing away," Holmesdale went on. "Being a peculiar sensitive sort of an egg, Bates would figure the whole world was against him, and might stubbornly insist on solving the mystery in his own way, to clear himself. So he and Pat stow away on Number 2, taking a last desperate chance to find out what's wrong."

"That doesn't sound sensible to me," Munson said flatly.

"Maybe not," Holmesdale said calmly, "but at

least it's a theory that checks up with certain other —possibilities."

"What other possibilities?" asked Jeff, eagerly.

"Won't talk about 'em now," the detective replied, with a hint of his customary laziness.

Jeff's eyes probed the glinting gray-blue ones before him for a full ten seconds.

Reginald Holmesdale was uncanny, somehow. That was the reason he was at the top of his chosen profession.

"What on earth," Jeff was thinking, "has he found out, or figured out, that the rest of us haven't?"

"In fact," Holmesdale was drawling lazily, "I think there may be an entirely different explanation from any we have thought of concerning the whole matter."

Suddenly Munson was leaning forward, tense with interest.

"And what's that?" he snapped.

"Maybe I'll tell you a little later," Holmesdale said levelly, "but I don't want to right now. It's easy to twist facts to prove a theory. Your ships, Mr. Munson, came down, both of them, on fairly firm desert land, didn't they?"

"Yes. We got a good break on landing fields," stated Munson.

"The Independent ships," Holmesdale went on, "have come down in the soft sandy parts, and this one is in the worst spot of all, the hills."

"What are you getting at?" Munson asked him, lighting a cigar.

"Just wondering whether it had any significance," Holmesdale said precisely.

There was a curious drive in the lanky detective now, as though each thought and sentence were another piece being fitted with accuracy into a jig-saw puzzle, the picture emerging bit by bit. He had an inevitable quality, as though his mind were a faultless machine that nothing could deceive.

"Come on, Reg, what's on your mind?" Jeff exploded.

"Nothing more than my hat—perhaps," Holmesdale said regretfully. "The police have been utterly helpless on this, haven't they?"

"Yes," nodded Jeff, "but so have we, for that matter."

"Suppose, then, that you join me, Jeff, in a little private police work of our own, the second we get back to New York, without calling on the police. I

trust myself a little more than I do the average policeman in this case, for various reasons."

"What do you mean—they might be bribed?" Munson cut in.

Holmesdale nodded, scrutinizing the greatest aërial transportation authority in the world with thoughtful thoroughness. "Within a few hours," he said, "Jeff and I, in the most efficient fighting two-seater we can lay our hands on, are going to be squatting up above the Mohave desert for a good many hours. Perhaps days."

"All right, sir," shouted the chief mechanic from the assembled ship, but it seemed that no one of the three men heard him. Munson was staring at Holmesdale in utter astonishment.

"What for?" he asked finally, as though unable to believe his ears.

"Because," Holmesdale said deliberately, "that will enable us to swoop down and examine the passengers on every ship that comes down." His eyes flickered toward Jeff and as plainly as though Holmesdale had spoken the words, Jeff got the warning—"Don't open your mouth and tell me how crazy that is. I know it as well as you do, but I'm saying it for a reason."

Munson got to his feet.

"That doesn't seem very sensible to me," he said slowly.

Holmesdale got to his feet deliberately, and suddenly he was the languid Slats Holmesdale of old. Jeff, his heart pounding with excitement, was scarcely able to move. Slats had something very definite in mind and Jeff would have given a year off his life to know what it was.

"Maybe doing wrong," Holmesdale mumbled in the old, disjointed way. "This day and age. No ground armies—ten thousand men or so. Air everything. Maybe Government ought to be told what we think—"

"But, man, you haven't said anything about what you think! You're going to inspect your ships when they come down—what can you find that you can't find in Number 2 here?" Munson exploded. "If you weren't Reginald Holmesdale, I'd say you weren't so bright! You've got more in mind than what you said!"

"Not a thing. Not a thing," Holmesdale told him as they walked toward the ship, but Jeff knew he wasn't telling all his thoughts.

"Well, I'll say this," Munson said. "Go at it

your own way for the next few days and I won't bother you. And this you can count on, boys, both of you——"

He stopped, and the desert wind ruffled his thick iron gray hair. He raised one clenched fist as though vowing an oath to the skies.

"More important than business, more important than anything else, is the keeping of this infernal device from the hands of any enemies of civilization. In my time I've been ruthless in business. Maybe I would be again, but I pledge here and now as many dollars or millions of dollars, and as much coöperation as the United system can give, for the purpose of keeping this thing from shattering the country. Jeff, I'll see Mr. Farley to-morrow. Independent and United are business foes, but allies when human welfare is involved. Are the two general managers agreed on that?"

"Yes, sir," Jeff said, a touch of bewilderment in his voice at the emotion in the ordinarily granite executive.

"Then go to it," Munson told him. "And you know I'm back of you. I don't know why you won't tell me more about what you intend to do, Holmesdale, but I know what your reputation is, and I

know Jeff Donaldson. I've tried to hire him at least once a month for the last two years. In fact, I'm going to suggest to Farley to-morrow that he amalgamate with our company right now, so that we can present a united front!"

They were approaching Number 2 as he said that, and for no observable reason Holmesdale took out his harmonica and played a lilting little tune. It was a popular song of the day and his face was unsmiling as he played the first part of an ancient, resurrected song:

"I don't know where I'm going, but I'm on my way." And as he looked over his harmonica and met Jeff's eyes, that thin, humorously sharp face seemed to be fairly aglow with quiet enjoyment.

Twenty minutes later, with Number 2 safely in the air and driving upward to the transcontinental level, Jeff could hold in his curiosity no longer.

"Slats, what's on your mind?" he burst forth.

"Many things. Number one. Everything within a radius of five hundred miles. Maybe that's by design because of the territory. On the other hand, the principal object has not been to destroy ships but to cause inconvenience. Maybe the thing won't work outside of that five hundred miles."

"You mean something from the ground cuts off the motors?" Jeff asked slowly. "By gorry, that might be right at that!"

"We'll have a look at the center of that five hundred miles," Holmesdale told him, "and see if there's anything interesting."

Jeff whistled. "That's an idea," he said softly. "Why didn't you want to tell Mr. Munson?"

"Might as well let him think we're concentrating on ships instead of the ground," Slats answered. "Before I came on I looked up all your men. Got police records from all over, too. Had secret service men tell me all they knew. Did you ever know that Potty Bates, twelve years ago, worked in the United Aircraft Laboratories, which is one of United Airways subsidiaries, for a month?"

"No. But what of it?"

"Oh, nothing, maybe. Did you notice anything peculiar in the attitude between Munson and Bates?"

"That nasty laugh Bates threw at Munson in Los Angeles? Yes, but I can't make anything of it."

"Strikes you as being a little bit theatrical? Villain laughs as he exits? All that stuff?"

"Well, yes."

There was a moment of silence during which Jeff's mind was casting about like a hound on a scent. Then he said excitedly, "Listen, Slats, are you trying to prove that Bates and Munson hate each other for some reason?"

"Possibly."

"But just a little while ago you seemed to be working on the theory that Bates wasn't guilty. I don't know what you're getting at."

"Just this," Holmesdale said, and for a moment he was very serious. "Bates quit United years ago disliking their general manager very much. Bates' laugh, I think, meant that he thought that United Airways is behind this sabotage of Independent ships. I think that means that Bates is absolutely innocent and is working to solve the mystery, partially to get even with United for something that happened in the past. It's just a coincidence that Bates happened to be the pilot of the ship tampered with. And since United Airways ships are starting to get theirs and Munson is coöperating with us, we can cross out any possibility of Bates being correct in his theory of who's behind it. That leaves only two logical explanations—a maniac, or extraordinarily powerful interests.

"Going a step further, the invention is on a limited experimental scale now, and that means, to my mind, that the origin of what happens is on the ground. Otherwise it would happen to ships all over the country. That in turn brings us to the Mohave desert district. And Jeff, my boy, we can't put the police or the secret service on the trail yet, if we're right, because it would scare the inventors into stopping operations for a while, only to resume them later when investigation has died. And that leaves it up to you and me to do a little fast work in the next twenty-four hours, with the Government's O. K., which we'll get. We'll also have them prepared to swoop down to help us if we run into trouble. O. K. with you?"

Holmesdale's calm, close reasoning for a moment seemed to deprive the young pilot of any capability for thought or movement. Then, suddenly, his eyes were aglow. The prospect seemed to ignite that hidden spark of recklessness within him.

"O. K. with me?" he gulped. "Nothing else! When do we start?"

"As quick as we can get to New York, do a little phoning around, and get back."

"Exactly what do we do?"

"We find out what's at the exact center of a circle bounded by the forced landings that have taken place, and see if there's anything peculiar about it. If there is, we find out what it is, by hook or crook, and let the Government do the work from then on!"

SINISTER SCIENCE

CHAPTER VI

SINISTER SCIENCE

DESPITE the plans they had made in the enthusiasm of the moment, it was four nights later before Jeff was able to drop in at Holmesdale's New York office and tell him that the specially constructed rocket ship was ready to take them back to the Mohave.

The young detective's suite, in a corner of one of those immense stone masses that housed cities within their walls, was a unique living place. A thermo chute brought him food from one of the hotel's restaurants, fifty floors below. In the ceiling, near one wall, was a sun lamp that shed a soft radiance evenly throughout the room. Unseen ventilators ruffled the curtains with a soft, seventy-degree breeze.

Slats himself, dressed in a brilliant lounging robe, was sprawled in a comfortable chair with a telephone on the arm of the chair. Apparently he was listening, although he had no receiver to his

ear, for he barely nodded when the excited Jeff Donaldson pushed through the door.

Jeff stopped. There was a voice in the room—a clear, precise voice, speaking a foreign language. Instinctively Jeff looked around for the speaker; then remembered, with a grin, that the author of the voice might be thousands of miles away. In his own private rooms, the detective had a prejudice, Jeff knew, against ear phones or any sort of receiver that you had to hold to your head. Instead, he had his telephone fitted with an amplifier that brought the voice to him in a normal speaking tone.

Sitting down quietly on the davenport, Jeff listened. The invisible speaker, he could tell, was a Rolvakian. He marveled. Rolvakia—the country established by the European treaty of 1963—was nearly four thousand miles away. And here was a voice from somewhere over there, coming over just as clearly as if Jeff himself were speaking!

What was Slats up to? Why was he talking to Rolvakia? Did the conversation have something to do with the catastrophe that was ruining the Independent Airways? Rolvakia, Jeff knew, was doing wonders in science. The people of that country were progressing as rapidly as the United States had

progressed early in the nineteenth century. They had already conquered the steppes of what was once Siberia, had made it a fertile country, had grown cities upon barren ice fields, had found new sources of power.

The older nations of Europe had begun to respect them—even fear them. The capital of the new country, Stalgrad, was a veritable seat of scientific research, out of which were coming announcements of the discovery of new synthetic foods, the producing of living organisms from inert matter, and advanced electrical inventions.

Jeff was impatient to get to the Mohave in his new ship, and when Holmesdale finished talking into the mouthpiece at his side, the eager manager cut in abruptly.

"Let's get going," he said.

"No hurry," drawled the detective. "Wait'll I talk to Berlin."

Whereupon, in order, Holmesdale called Berlin, London, Paris, and Canton, talking each time in the native tongue of the country he was calling. Unable to understand what was being said, Jeff almost burned up.

"Holy rockets!" he finally burst out, "can't you

let a guy in on it? Do you have a sweetheart in every port, or what?"

"Retain your shirt," Slats advised. For a moment he pondered, then said slowly: "It must be Rolvakia."

"What must be Rolvakia?"

"Been checking up," the detective became disjointed. "Scientists working on power transmission. Best work done in Stalgrad—Rolvakia."

"Well?"

"Three men in Rolvakia. All of 'em bugs on radio power—all that. One of 'em missing. Left Rolvakia six months ago. Name's Sergoff. Kind of a nut. Done more than anybody else in the world on power. Left Stalgrad six months ago without telling anybody."

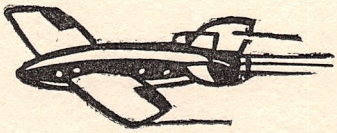
"Do you mean that maybe he's the man behind the guns in the Mohave?" Jeff was excited now.

Holmesdale shook his head. "Dunno. Sergoff has left Stalgrad before; he always comes back with a new invention. No reason to think that he came to the United States. Besides, there's a scientist in Canton, and one in Paris. Might be any of 'em. Dunno. Just thought I'd call."

"Well—if you haven't any more calls, let's get

out and roost over the center of that five-hundred-mile area."

"Right." The detective dropped his languid manner, and in a moment he was ready to leave with the impatient general manager.



DEATH OVER THE DESERT

CHAPTER VII

DEATH OVER THE DESERT

ONCE at the controls of his new-built rocket ship, Jeff was happy. All traces of the brisk young executive who was accustomed to direct his company with swift efficiency had disappeared.

Jeff was a boyish-faced, glowing-eyed young adventurer, bound for he knew not what, and glorying in a feeling of half fear, half anticipation, that sent tingles racing up and down his spine, as the ship hurled itself out over the great flat desert on its way to a certain chosen spot above the interminable sand.

Many things had happened in that last four days. On the trip back to New York, Holmesdale, after refreshing his soul with three straight hours of plaintive harmonica playing, had switched their plans somewhat. Mr. Farley, most of whose money was sunk in Independent Airways, had been help-

less to assist them financially, but Munson had come to bat nobly. They now had an unlimited checking account, and one of the first results of it was the secretly constructed ship that was bearing them westward at four hundred miles an hour.

It was a rocket ship with rounded fuselage and one wing, and was of the fastest and most modern military fighting type. But in place of the ordinary metal of which most army planes were constructed, the new Farley invention had been used. More than that, four layers of metal instead of one had gone into its construction, and the result was an almost bullet-proof surface. The cabin in which Holmesdale and Jeff were riding was absolutely bullet-proof except, possibly, for the windows. And it would take a high-powered bullet to penetrate the non-shatterable glass, and even it could be completely protected by pulling down metal blinds. If they cared to fly without having any vision whatever, they could protect themselves from any onslaught.

Concealed in the wings at intervals of a few feet were four machine guns that were each capable of firing a thousand shots in less than a minute and ten thousand shots without reloading.

Not even Mr. Munson or Mr. Farley knew about that ship, and just why Holmesdale had insisted on its construction in Government plants with great secrecy, Jeff couldn't quite figure out.

"Don't worry. Can't go wrong keeping our mouths shut," Holmesdale told him vaguely.

Jeff felt the tiny gold Government badge pinned to his undershirt as his eyes swept the ground four miles below. Temporarily, at least, he and Slats, who was now engaged in playing his harmonica with great satisfaction, were Federal operatives with power to arrest and to use the Government authority in any way they deemed best.

On the dashboard of the plane was a wireless phone geared up to a special wave length that would communicate instantly with a certain office in a huge Government building where one of the most powerful single individuals in the world had his desk.

The past days had been hectic ones, Jeff reflected, and more of an ordeal because of the delay in carrying out their plans. In the first place, three more Independent ships and one United ship had undergone those mysterious landings. In the second place, the chief of the United States aërial police had admitted

frankly and profanely in Washington that he and his men were totally baffled.

Third, and most important, was the apparent disappearance from the face of the earth of Potty Bates and Slim Patterson.

The whole affair was a national sensation, and the disappearance of the two suspects had capped the climax. The day before, the two suspected flyers had started west in Potty Bates' own machine, a rocket plane. While moored to a service dirigible to refuel, in the vicinity of St. Louis, a terrific rain storm had come up, and the police had lost their trail. They had plunged into the rain and fog, and disappeared from the sight of men. Every ship in the world had been queried by wireless phone for a trace of them, and every single individual in the country had been notified by radio to look out for them.

They had simply disappeared. No aërial service station had serviced them and their ship's fuel capacity would have allowed them to stay in the air only six hours. No restaurant had fed them, no hotel or private house had sheltered them. The Mohave had been combed. Every inch of semi-deserted or deserted territory had been scrutinized

by hundreds of special aërial police. Bates and Patterson had vanished utterly.

Had their rocket ship exploded high in the sky somewhere and blown them to atoms? Such an accident was unheard of, since the crude pioneer days of the rocket ship back in 1960, but it might have happened.

Jeff came to himself with a start as he realized they were approaching the center of the danger zone. He got his bearings quickly as he realized that within ten minutes he would be over the exact spot they were bound for. Then their work would begin.

Three thousand feet below them—he was flying two thousand feet above the transcontinental level—a vast bulk, painted black with white trimmings, its myriad windows aglow with light, took shape. That was the *Air Ranger*, the palatial flying yacht of the president of the transportation trust. Its fuselage was seven hundred feet long and the spread of its single wing was even greater. The fuselage was of a peculiar boat-like shape, so that the *Air Ranger* could be dropped to the surface of the sea. The wings were collapsible, and in two minutes the ship could be made into a yacht and could steam up to a dock in any desired port. United

had huge hangars for the special use of its president, in the vicinity of his twelve residences scattered from Canada to Europe and South America.

Jeff remembered seeing the *Air Ranger* come down in Havana and steam up to the dock to allow its passengers to alight before the awed gaze of thousands of people.

They were dancing in the salon, he saw, as he got a glimpse of the interior through a great skylight in the top of the super-ship. Then he forgot the aërial monster as his eyes strained ahead to find out what lay in the exact center of the area they had circumscribed on a map. Of course, if there was anything significant in the desert, the chances were a million to one that it would not be in the exact center of those forced landings.

"Hah! Buildings! Wonder what for?"

It was Holmesdale, peering ahead through glasses. The cabin was in the very nose of the ship, and he was forced to shout to overcome the steady drum of the explosions in the rear of the fuselage.

Jeff took the glasses as Holmesdale took the controls of the ship. There in the middle of the desert were what seemed like the buildings of a ranch. There were two sheds, one ramshackle resi-

dence, and a few smaller buildings. A water hole was near-by and a few animals could be seen lying in the moonlight, like tiny specks in a toy yard. Like a scene resurrected from 1900!

It was close to dawn, and Jeff turned to Holmesdale to ask:

"Think we'd better get higher?"

"I don't think so. We're well camouflaged. Can't see us from the ground anyway," Holmesdale said with that gentle jerkiness. "Doesn't look very important, but we'll wait and see."

They did wait and see. Their ship, artfully camouflaged in zigzagging streaks of blue and gray and white, was invisible from the ground, Jeff knew. Nevertheless, he decided to go five thousand feet higher in order to be as inconspicuous as possible to the steady stream of travel on all levels below them.

At twenty-five thousand feet he snapped out the huge parachute that could waft the whole ship down, cut off the motor, and increased the natural area of the 'chute by lengthening the steel ribs. By finding an area of upward air currents, they could now float suspended in the sky, with hardly any loss in altitude.

He and Holmesdale stood guard alternately, taking turns at cooking in the tiny little kitchen; napping, and ceaselessly sweeping the ground below.

It was five o'clock in the afternoon, after an uneventful day, when Holmesdale awakened Jeff.

"Look down!" he commanded.

Jeff did, through the powerful glasses, and inspected the tiny living specks on the ground with mounting interest.

"Gosh!" he said involuntarily. "There are six men down there!"

"Absolutely. Only two in sight all day. Suddenly four more came out of the house. Funny, staying in all day like that. Funny looking place. No sense to it. Little garden. Six men. May have to investigate that."

For an hour they watched the men. They were simply lolling around at the edge of the water hole. Shortly before darkness fell, Jeff, who had the glasses, suddenly felt himself become tense, and his voice cracked a bit with excitement as he said:

"They've lugged a thing that looks like a telescope or something out of the house and are looking up at us!"

Holmesdale took a look and his keen narrow face suddenly twisted in that inimitable grin.

"Maybe so. Maybe not," he chuckled. "Jeff, we'll wait through another night. See what we can see, if anything, and maybe call on the Government then."

After darkness fell and thousands of searchlights started to sweep the sky hundreds of miles east and west of them, all the men had vanished, but they had disappeared into one of the sheds and not back into the house.

"Funny," Holmesdale said with satisfaction. "Suppose they sleep in the house all day. Work in the shed all night. If so, at what? I smell a peculiar sort of rat, my boy. Wait'll I do a little phoning."

A moment later he was talking to Washington. Within fifteen minutes, the television box on the instrument board resolved itself into the picture of a gray-haired man talking into a telephone to them. The chief of the Secret Service was saying:

"That place used to be occupied by a family of squatters named Paton. Six months ago the Patons left for San Francisco and sold the place to a man named Barrett. Barrett, an old invalid,

who'd been employed in the chemical laboratories of the United group, lost his money and his health and apparently went out into the desert because he thought it would be good for him and because he didn't have money enough to live anywhere else. All planes standing by if you need them."

Jeff looked thoughtful. A former United man living there for his health . . . Well—they'd wait and see.

The hours passed on leaden feet as the ship floated in the keen upper air. Every once in a while Jeff had to start up and fly a little circle not only to regain lost altitude, but to work the air pump that kept the air within the cockpit at sea level density. Other than that, however, they just ate and slept and watched.

The hours rolled on to four o'clock in the morning. Occasional planes passed them at some distance, for they were floating a few miles north of the Los Angeles route and many miles south of the San Francisco line. Jeff found it hard to watch the ground continuously, and his mind persisted in wandering to Bates and Patterson. How, where, and why had they succeeded in losing themselves? Did that make it a certainty that they were guilty?

And what had Slats found out in Rolvakia, or Berlin, or Canton, in those long distance calls?

Suddenly an electric current galvanized him. All thought except one swept from his mind. His eyes, glued to the glasses, widened in astonishment as he kicked Holmesdale into wakefulness. His brow creased as he strove to comprehend the significance of what he saw.

"What is it?" snapped Holmesdale.

"Look!" Jeff shouted, his voice sharp. "See that thing coming up at us!"

Holmesdale took one look through the glasses. Something like a great projectile, oval and torpedo-shaped, was speeding up at them in an almost vertical course.

"See that shed at the edge? The roof just rolled back and this thing shot up like a shell out of a gun!" Jeff exploded. "Now look at it!"

It seemed that the thing, whatever it was, had reached an altitude of fifteen thousand feet in less than a minute. Jeff didn't need the glasses now. Suddenly two very small wings, like the flippers of a fish, sprang into being on each side of the curved surface and toward the front of it, and that steep climb flattened out to an angle of about forty-five

degrees. A continuous stream of smoke came from the rear of the amazing craft. In great circles it climbed upward, at a speed that Jeff estimated must have been close to fifteen miles a minute.

It wasn't more than thirty feet long, and the wings extended scarcely eight feet on each side.

"It's a ship!" Holmesdale said, with a queer ring of tenseness in his voice. "They shot it out of some catapult arrangement, and the dog-goned thing with those little wings can't stay in the air at less than six or seven hundred miles an hour."

"Yes, and by all that's holy, they're after us, Slats!" shouted Jeff.

He was scarcely conscious of what he was saying or doing. Instinctively he felt that death was speeding up at them in some mysterious and terrible form. His mind was numb, his muscles paralyzed, and his body a cake of ice. That freaky craft was three thousand feet below, darting upward like a bullet, and as the two pilots watched with fascinated horror, what seemed like a long line of light flashed upward at them. As though by magic, one wing tip seemed to rock and turn red. Had there been but one layer of metal, that liquid fire, that line of electricity, or whatever it was, would have

cut the wing like a knife. In that instant Jeff snapped back to himself.

With a convulsive movement Holmesdale threw the lever that snapped in the 'chute. As he did so, Jeff pressed all buttons at once, and the rocket ship burst into a roar. A split second later, as he threw the ship into a bank and started diving and dodging downward, his hand was on the gun controls.

The aërial projectile below, flying with dizzying speed and curving upward, sent forth two more of those horrible lines of light, but they missed their target. Jeff, his ship in a terrific nose dive, felt a sense of almost superhuman calmness. He knew that he was flying for his life. Carefully he aimed his ship. All four guns spoke at once, and the tracers showed that his aim was accurate. With accurate skill, Jeff followed the speedy craft around, raking it with bullets. His own speed was a thousand miles an hour as they flashed downward. But with dismay he saw that his bullets were literally bouncing off the sides of the enemy plane.

SCOURGE OF THE SKY

CHAPTER VIII

SCOURGE OF THE SKY

A FEW seconds later he was sure that his machine gun fire was ineffectual. His terrible, raking burst of high-powered steel penetrating bullets had no more effect than so many raindrops would have. The universe was a mad thing of roaring explosions, speed so great that it was hard to keep a clear head, and existence itself seemed to be a nightmare.

Holmesdale was on the floor of the cockpit, manning the gun that shot straight downward through the floor. The enemy plane, flying so fast that it was more like an unbelievable ghost ship than anything tangible, was now almost as high as they were.

Jeff, a tight-lipped, blazing-eyed maniac for the moment, threw his plane around in terrific banks in an endeavor to escape the stabbing ray of light that periodically flashed toward him from the climbing outlaw ship. Each time the ray struck it

seemed that a layer of metal was cut through. It would have sliced an ordinary ship in two in a second, and what it would have done to a human being was almost too terrible to contemplate. They were waiting to get above him so that they could take their time and cut him to pieces.

Jeff made up his mind without conscious thought. He and Slats were as helpless as two babes in front of a speeding locomotive. One last desperate gamble for life opened up to the despairing pilot. Not a second too soon, he put it into execution.

His ship, with its extra weight, was comparatively sluggish, and even if his bullets had been effective, he couldn't hope to cope with that smooth, oval, tiny-winged monstrosity. He threw his ship into a left bank and pulled it partially out of that terrible dive as the outlaw ship shot upward toward him from the left and perhaps eight hundred feet below him. It was still in that terrific climb, arching upward like a huge bullet. That ray of light shot out and caught the tip of his right wing. It seemed to melt a line across the wing tip. One small piece of metal fell off.

Jeff bawled one word into Holmesdale's ear and then, using both hands on the wheel, lifted his

ship in a right bank and a zoom combined. A second later, as the outlaw ship curved to the right, he was above and behind it.

Holmesdale was frantically closing the steel blinds on the windows until finally only a crack was left for Jeff to see through as he sent his ship, its rocket propulsion working to the limit, into a dive. He was on the inside of the curve being described by the enemy aërial torpedo ahead of him, and the speed of his dive plus the smaller distance that he had to traverse to cut off the other ship gave his mad scheme some semblance of possibility. His face was a pale, haggard mask, but his hand was unfaltering as his fighting plane darted downward.

The other plane was almost on a level with him now, so proud of its invulnerability that it disdained to make any maneuver. Just climbing, climbing. . . .

All the judgment of speed and distance that a short lifetime in the air had given him went into Jeff's next move. Traveling at a thousand miles an hour himself, with only a few precious seconds left, he calculated the spot to meet another ship going seven hundred and fifty miles an hour. Straight for that spot he hurtled.

And did it! Too late the unseen pilot of the enemy ship realized what was about to happen. Jeff was gambling his and Holmesdale's life on the sturdiness of their many-layered plane and the toughness of the Farley metal. The impact of a bullet was confined to a minute individual section of that other plane's surface. But a compact ton of metal, traveling a thousand miles an hour, would mean something else.

A sort of an anguished groan escaped Jeff in that last split second as the rear of the other ship loomed before him, and Holmesdale at his side, motionless as a statue, had his arms in front of his face.

With superhuman effort, Jeff bolstered his nerve. He braced himself for a shock, and sent his overweighted plane at right angles into the tail of the enemy's craft.

The impact was terrific, but Jeff retained consciousness. Vaguely he realized that hitting the tail, which had been beyond his wildest hopes, was different from hitting the other plane amidships. The sturdy plane he was flying faltered but momentarily as its nose tore into the slim tail surfaces

of the other craft, and then, partially crippled, righted itself under Jeff's skillful hand.

Holmesdale was lowering the steel windows now, blood flowing in a stream from a cut in his head. He had been thrown forward heavily and seemed but half conscious. Then Jeff saw what he had done and an exultant shout came from his lips as his eyes met the glowing ones of Holmesdale.

The other ship was describing a species of cartwheels through the air. The terrific shock on its tail had sent it spinning around like a pinwheel. As Jeff watched it, his heart in his eyes, he saw its crazy whirling gradually stop two thousand feet below, and then, as though the shock had put out of commission whatever motor power it had, it went into a straight nose dive, like a great bomb dropping perpendicularly downward. Those absurd wing surfaces had no appreciable lifting power whatever, except at extreme speeds.

"Must have knocked the pilot cuckoo!" bawled Holmesdale. "Look at her go!"

Jeff had automatically put his partially crippled ship into a dive, following the other craft down. He didn't realize that in the short, deadly battle he

had gone through both planes had drifted more than fifteen miles eastward, nor that the drum of the explosions in the rear of his own ship was now a hesitant and disconnected one.

"He's come to!" bawled Holmesdale. "Look! His ship's sunk, though!"

Jeff peered downward just in time to see a shape hurtle forth from the lower plane and an individual parachute snap open.

"The luck of the devil!" he roared happily. "We'll get somebody alive!"

Forgetful of the fact that his plane might be weakened, he dived it recklessly. Two minutes later he was circling round and round a small figure that was swinging slowly underneath the parachute. He switched on his searchlight and in its rays there leaped into life a lean, white face, the features indistinguishable except for a small dark mustache and very white teeth. The man was very short and slight, and as they watched him he took a cigarette from his pocket, lighted it, and waved to them gaily.

"That bird has nerve!" the exultant Jeff said admiringly.

Down below them the enemy ship had hit the

ground. It had broken into several pieces, but it was not as complete a wreck as any other known plane would have been after such a terrific drop.

Holmesdale was on the phone as Jeff sent the plane circling in wide spirals around their prospective captive. A second later he hung it up.

"Out of commission. Thought so. We're on our own, big boy. Can't get the police, and this ship can't go fifty miles more. What do we do?"

"Why ask me?" Jeff threw back at him.

The blood had returned to his face and it was alight with a sort of dynamic vitality and warm zest for life. Temporarily he felt like a sort of superman to whom no hazard was too great or no struggle too one-sided.

"Then I'll ask myself," Holmesdale said. A glow deep down in his eyes was the only indication of the emotion within the languid gentleman. "We get this fellow. Get what we can out of him. Maybe his friends will take out after us again. Some plant they must have. Maybe we investigate. Maybe not. Try anyhow. What say?"

Jeff glanced westward toward the nondescript group of buildings from which had been fired that extraordinary projectile. There lay the secret of

what was happening in transcontinental liners, and, more important than that, who was back of it, and why. He was unable to see anything but a dark blur more than fifteen miles away. Did the enemy know they had lost the battle, or had clouds screened the scrap from searching eyes down at the ranch? Would they come out to rescue their pilot? He took hold of himself mentally as though striving for complete sanity, and tried his best to think of the possibilities ahead with some degree of common sense. As though to give himself breathing space, he said:

"Say, suppose by any chance that Potty Bates and Pat had their ship just shriveled up in the air by this same outfit? That disappearing stuff—"

"Possibly," Holmesdale nodded. "May have got the same idea we had. Prowled around too much—zingo! Dead! Looks like the ground was close. We'll beat it down ahead of this bird. Then what do we do?"

There was no use in Jeff's even trying to look at the thing sanely.

"What do we do?" he repeated, and his head went back as he loosed a full-throated, boyish laugh that was compounded of utter recklessness and

abounding anticipation of the future. "Get all the dope we can. If they saw what happened, they'll cover up before the police get here."

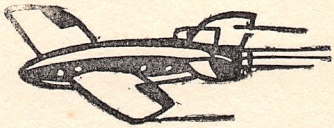
"Just what I was thinking," nodded Holmesdale. "I don't know. Seems like suicide. Prowl around. We'll see what this little sprout has to say. Suppose he's got any trick gadget on him to knock us off with?"

"We'll make him surrender under our guns without us getting out of the ship," Jeff told him. "Gosh, I'd like to see what they've got down there below ground!"

As it turned out, he *did* see what they had down there, but not exactly in the manner he would have selected.

A moment later he had dived within a hundred feet of the ground. The man in the parachute was still several hundred feet above him. Jeff snapped out the 'chute of his plane after a quick look at the soft sandy soil, and floated his crippled ship to earth without a jar. A second later he had refolded the 'chute and, with the electric taxiing motor and propeller, had swung his ship around and taxied to within a few feet of where the rapidly dropping jumper would land.

The one free swinging machine gun in the ship was being properly aimed by Holmesdale. Motionlessly they sat in their almost impregnable fortress, waiting for their victim. But almost at that exact moment—unknown to Jeff and Slats—a small plane carrying four men with masks on their faces was rising from the ground, fifteen miles away, close to that innocent-looking collection of weatherbeaten buildings.



LAIR OF THE LAWLESS

CHAPTER IX

LAIR OF THE LAWLESS

AS THE descending parachute and its helpless cargo came closer to the tensely waiting airmen, Jeff could see their captive more plainly. When he came within forty feet of the ground he raised his arms above his head and yelled down laughingly:

"Don't shoot! I surrender!"

There was a foreign touch to his speech that bore out his appearance. He was short and slim and his face was handsome. He was bareheaded, evidently having taken off his helmet on the way down, and his hair was sleek and black as patent leather. A little black mustache showed over white teeth that were now flashing in a cheerful grin.

Holmesdale kept the machine gun trained on him and Jeff, as the outlaw hit the ground, walked in a circle around him to keep out of line of Holmesdale's gun.

"Keep your hands in the air!" he ordered brusquely.

He came up behind the slim captive and in a trice had discovered that the man was unarmed. Nevertheless Jeff had his pistol ready. Somehow, he had a superstitious feeling that at any second some new and deadly thing would appear from the captive's pocket.

"Now put your hands behind your back," he ordered, and in a moment he had the man's wrists tied.

Jeff, his eyes aglow with a sort of fierce joy in what had happened and what might happen, whirled his captive around.

"Good evening," that young gentleman said airily. "I presume you are Mr. Donaldson, no?"

For a moment Jeff did not speak as he scrutinized the stranger. The man didn't seem to be over twenty-seven or eight, and his flashing smile and sparkling eyes indicated a vast enjoyment of danger. There was not a trace of fear in that jaunty smile, and even in his relaxed carriage there was an unworried acceptance of the situation.

"Yes," Jeff nodded.

"Well, well, look what a little thing we captured

—after all that trouble!" Holmesdale said, a faint grin on his face as he came up. "Turn around, and let's see what you look like. Rolvakian, huh?"

The captive bowed, his teeth flashing again in that dazzling smile.

"You are right," he said. His face was as white as chalk and its pallor contrasted eerily with the black of his hair, eyes, and mustache. He was dressed in coveralls and appeared to have very little on beneath them.

"Citizen of Stalgrad," the detective continued. "Student in the Institute of Science, member of forbidden societies. General nuisance to the Stalgrad police."

Startled surprise showed in the foreigner's eyes, but only for a moment.

"I did not know I was famous," he said, bowing slightly.

"You're not," said Holmesdale curtly.

Suddenly Jeff snapped back to himself as he recollected the deadly ray of light that had shot forth from the winged monstrosity the man had been flying. His eyes flared dangerously.

"Now, listen, you murdering rat," he said with hard emphasis, "you can stand here and grin at us

if you want, but you've got just one chance of saving your life, understand?"

"Yes? And what is that?" smiled the Rolvakian.

"Tell us all you know," Jeff snapped. "Tell us how we can get a look at whatever layout you people have got underneath the ground."

"Righto," Holmesdale put in. "Maybe they saw the scrap. If so, they'll be gone in a few minutes. Layout all destroyed, probably, before police could get to 'em. Wish that telephone hadn't gone out of commission."

Suddenly the lean detective's tone changed. His arm leaped out with the speed of a striking rattler and gripped the shoulder of the smiling foreigner.

"In the next few minutes you're going to do just what we ask," he said, in clipped phrases. "You tried to kill us—don't expect any mercy yourself."

"But you are wrong," the Rolvakian said nonchalantly. "My object was but to cripple you up there. Not so? I could have killed you had I wanted to. It was to get you to use your parachute to give us more time."

"Anybody that'd believe that," Jeff interrupted, "could be sold Manhattan Island for ten cents."

The Rolvakian shrugged his shoulders.

"As you will," he said carelessly. "It makes no difference. I shall tell you what I know. Why not? I have done all I could. If I can save my neck, I will. Not so?"

Suddenly Jeff's head snapped around as the low drone of a motor reached his ears. He glimpsed a low-flying ship. The next second a voice that apparently came from a loud speaker attached to the plane reached them clearly as the plane itself, flying but fifty feet off the ground, came close to them.

"If one of you moves, you'll die where you stand," the voice said as the plane settled to earth.

Jeff was incapable of speech. For a moment he stood paralyzed.

"Raise your hands!" Holmesdale snapped. "They've got us. Might have known that. Can't do anything about it anyway. No telling what they've got in their—"

Jeff found himself lifting his hands slowly above his head. He watched four masked men tumble out of the plane, which was an ordinary type of small cabin ship with but one motor, and he made no resistance as the men expertly tied him and Holmes-

dale. One of them exchanged rapid-fire conversation in Rolvakian with the slim young fellow who had been their captive for so few minutes.

Jeff glanced at Holmesdale, who understood Rolvakian. Holmesdale, as nonchalant as though he were playing cricket, gave a barely perceptible wink. He could understand what they were saying, Jeff knew.

The other three outlaws were silent until the group started with Jeff and Holmesdale toward the ship. Then a big, broad-shouldered fellow, about whose appearance Jeff could tell nothing except that his hair was blond, said unexcitedly:

"Did you hit Alexy's ship on purpose or by accident, Donaldson?"

His voice was deep and harsh, and his eyes glinted coldly through the tiny eyeholes in his mask.

"On purpose," Donaldson told him. "That was the only way to get him, wasn't it?"

"I heard you were a flyer, and now I know it!" was the answer.

"What are you going to do with us?" Jeff demanded. His heart was pounding like a trip hammer and it seemed that every inch of his skin was hot. His mind was racing around, thinking of a thousand

possibilites, and all of them seemed infinitely horrible.

"I dunno," the big man said tersely, "but there's a surprise or two for you, I presume."

Trussed up like two bags of beef, Jeff and Holmesdale were wedged into the cabin of the plane and a moment later, with the blond outlaw at the controls, the ship was taking off. Scarcely a minute later they were landing alongside one of the sheds. The other one, from which that eerie craft had been catapulted, had resumed its normal appearance, Jeff noticed. From roof to side walls, both structures looked like weather-beaten sheds that had stood for years.

As the plane was being trundled into the shed, Jeff saw that there were two other planes in it, both of ordinary types.

There was a brief discussion in Rolvakian between the leader and the man known as Alexy, and Holmesdale got a chance to translate it.

"They're arguing whether to take us under ground," he whispered. "They're afraid the police will be investigating soon. Trying to decide whether we should be put out of the way up here or below."

Jeff nodded. His face was as white as a sheet and

his eyes were blazing, but once more his mind was working with icy clarity.

The outlaws were worried and distraught, that was plain. What were the possibilities? If he and Holmesdale were taken below ground and the outlaws' secrets partly revealed to them surely they would not be left alive. The very fact that he and Slats had hung above this rendezvous watching them was a plain indication that their game was known and they could not possibly plan to stay there.

Who were they? There were one or two Americans, at least, but the leaders were foreigners—was it a plot on the part of some other nation to cripple the United States? If so, why were they operating in such a small way, with only one headquarters? It couldn't be experimentation—they wouldn't pick enemy soil to experiment on. He found himself up against a blank wall. Who was the leader of this queer place?

"We'll go below the ground," Alexy said suddenly, approaching them from the shed. "Walk this way, gentlemen."

The debonair Rolvakian smiled engagingly. Jeff followed as though he were in a dream. Somehow,

there was something more horrible and menacing in the outlaw's boyishness than there would have been in definite threats. What species of man was this who considered murder something to laugh at, and crime a matter of course? Jeff was nine-tenths dread and one-tenth eager anticipation as he and the silent Holmesdale were marched into the shed from which Alexy had been hurled in that awe-inspiring plane.

It was dark in the shed and there was absolutely nothing in its crumbled interior except a large, apparently wooden cylinder that extended from the ground to the roof.

"That's what they shot the ship out of," Jeff told Holmesdale, and Holmesdale nodded as he gave Jeff a warning look. Conversation was not wise at that moment.

The leader pushed his hat back on his head, revealing a mop of curly, oily black hair, and went over to a wheel. The next second the cylinder of wood sank very slowly into the earth. It came to rest without a jar, and over the top of it, merging perfectly with the plank flooring of the shed, was placed a covering of planks. In the dim light, the cracks between the planks over the cylinder and

the permanent floor were scarcely visible. The outlaws were pulling in their horns.

A second later the big blond American had lifted a cunningly concealed trapdoor in the floor, while two of the others, without a word, unbound Jeff's arms. One of them, a small, bandy-legged man with huge shoulders and tremendous forearms, said, in a Southern drawl:

"You all got tuh climb down a ladder. But no false moves, understand?"

As in the case of Alexy, there seemed to be more menace in that unconcerned, musical drawl than there would have been in snapped, brusque orders. Jeff felt gooseflesh prickling all over him. These men who could take what they were doing so calmly certainly would be unconcerned over a human life.

They unbound Holmesdale's arms, too, and then the leader, followed by Alexy, started climbing down a small vertical ladder that disappeared into the gloom below. Jeff was ordered to follow Alexy, with Holmesdale just behind. The remaining outlaws followed Holmesdale. Rung by rung Jeff descended, and when he had gone about thirty feet down in the narrow shaft, a light was suddenly switched on below.

The last outlaw had closed the trapdoor and locked it. Heavy steel was beneath the plain covering of it, and the shaft itself was lined with metal.

Jeff glanced down as the light came on, but he could see nothing except the bottom of the shaft and a heavy metal door. He saw it swing open without help from any human hand or any apparent signal. As he came within fifteen feet of it, the leader and Alexy disappeared through it. Alexy poked his head out as Jeff reached the bottom, and bowed low.

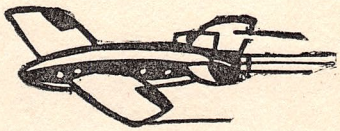
"Enter our humble home," he said mockingly.

There was nothing to be seen, for the passage curved within ten feet of the entrance. It was lighted dimly, and in single file, with Holmesdale directly behind him, Jeff made various turns. Finally, after about a hundred feet, a sudden turn brought them face to face with another metal door that opened as silently as the first one had.

For a second Jeff stood in the doorway, the lanky Holmesdale peering over his shoulder. They were at the top of a long flight of steps that led a hundred feet downward to the floor of the vast cavern that was like an underground factory. Jeff's head was near the roof as he stood there and surveyed

with wide eyes the brilliantly lighted scene before him.

Vaguely he saw tremendous mercury vapor turbines driving huge generators. On the other side of the vast cavern were transformers. Several great wires seemed to disappear into one wall close to the ceiling. There were steel ladders and runways along the sides of the underground factory, which must have had at least seventy-five feet of ground above its steel ceiling. The maze of machinery was utterly astounding. He didn't have time, however, to take in its wonders, for down on the floor in a group of six men, four of whom were masked, he saw Potty Bates and Slim Patterson looking up at him.



MONSTERS OF MACHINERY

CHAPTER X

MONSTERS OF MACHINERY

FOR a few seconds Jeff merely stood there. Everyone else had halted all movement. It seemed as though the outlaws were waiting for Jeff to make the next move. Bates and Patterson said nothing. There was a slight sneer on Bates' face, but Patterson was white and taut, as though the strain of what he was undergoing had stretched him to the breaking point. Jeff's mind seemed unable for a moment to comprehend the significance of the scene before him. Then, abruptly, he got hold of himself.

"Snap out of it!" he told himself furiously, and it was as though a misty veil that had clouded his mental horizon was torn away.

"Wouldn't be surprised if Queen Victoria rode in here on a high bicycle," Holmesdale breathed in his ear, and that useless remark completed the transformation of Jeff from a man reeling with the shock

of awesome revelations to a calculating, clear-minded young Government agent.

"We will go down, eh?" smiled Alexy, one arm describing a mocking gesture.

Very slowly Jeff led the way down the steep metal steps that were almost like the rungs of a ladder. When he thought back on the scene later, he recollected how peculiar it was that he himself had been permitted to lead his captors down to the floor of the mammoth electrical plant. At the moment, however, he attached no significance to it.

His eyes froze to Potty Bates and Patterson, to the exclusion of the towering machinery all about him. From various portions of it there came a slight hum, but apparently it was not in full operation. He paid no attention to it whatever, for his mind was concentrated exclusively on the ex-pilots of Independent Airways.

Bates, his mane of black hair in wild disarray, his bulldog jaw thrust forward and that mirthless smile on his face, met the gaze of his former chief unwaveringly. He and Patterson were a few steps in advance of the silent masked men around them.

On one of the metal runways high up among the

machinery, a masked mechanic hung over the railing as though absorbed in the scene.

The silence was oppressive, broken only by the slight hum of the machinery and by the noise of the descending men's footsteps on the metal stairs.

"So this is where Bates and Slim disappeared to," Jeff was thinking. "Are they captives, or are they part of the ring?"

Instinctively he knew the answer, he thought, as he reached the little platform halfway down the steps.

It seemed that Bates held Jeff's eyes by a sort of magnetic attraction. His curiously oriental-looking eyes, black as coals, met Jeff's unwinkingly, and the eccentric scientist-pilot seemed to be carved from stone as he stood there.

Suddenly the tension generated by the silent tableau gripped Jeff, and he felt that he must do something to break it. As though animated by the same thought, Potty Bates spoke and his voice reverberated from the walls.

"Well, well, well! The king of all creation himself is paying us a visit!" Bates said sardonically. "Welcome to our city, Donaldson. How is the boy wonder now?"

Bates almost snarled the last words and Jeff, staring down into that challenging face, was conscious of a wave of utter hatred that made his hand tremble slightly and the blood rush to his face in a flood.

"One of 'em! Rum go, what?" breathed Holmesdale in his ear, but Jeff scarcely heard him. He had no room in his mind for anything but that traitor below. He was almost at the bottom of the steps, now, and his free hand was clenched at his side. Every nerve in his body was leaping. Never in his life had he felt such hatred for a human being as he did at that moment for the big pilot a few feet away from him.

The outlaws seemed to be glancing at each other as Potty threw his sneering remark at Jeff, and Patterson's face seemed to become even more drawn and haggard than it was.

"So this is the kind of a chap you are, Bates!" Jeff found himself saying. He was walking slowly toward Potty, moving as though he were unable to help himself.

"No pet names, Donaldson!" Bates threw back at him savagely. He took a step forward as though to attack.

The outlaws seemed to be watching with absorbed interest. No one said a word. It was as though he and Bates were two boxers, ready to perform before an interested and unprejudiced audience.

Bates stopped three feet away from Donaldson, his eyes fighting Jeff's. Jeff could think of nothing but the fact that before him was the trusted associate of Mr. Farley, a pilot of Independent Airways, an American, who had been untrue to every trust, and had even aided in Alexy's attempted murder of Jeff and Holmesdale.

Jeff was white with rage.

"Well, at least you've got nerve enough to show your own face, and that's more than the thugs you are playing with can say!" he said, and there was something deadly in the slowness of his words. "Please accept my sympathy for not succeeding in knocking off Slats and me a few minutes ago. Going to do it now?"

"Wouldn't you like to know?" Bates grinned.

He had changed somehow, and there was a sort of unearthly light in his eyes, as though he were in the grip of some maniacal obsession. Could it be that he had gone mad? He didn't seem like the same

person Jeff had known for four years, but rather like a snarling, growling animal.

"Well, I don't give a hoot what you and your boy friends have in mind," Jeff told him. His anger was so great that he had lost all consciousness of fear. He was but dimly conscious of the ring of spectators, silent and interested, and it didn't occur to him how peculiar it was that they made no move to interfere with him and Bates. It was as though they were seeing a show.

"Furthermore," Jeff went on, "I think, Bates, that you and Slim are just about ten degrees lower than ordinary murderers. You're nothing but—"

For two minutes, deadly insults fell slowly from Jeff's ashen lips. Potty's huge fists were clenched at his sides as he took every word of it. Jeff was white and shaking when he concluded, but his eyes stayed fixed on his former friend. He didn't realize that two outlaws had unobtrusively placed themselves on each side of Holmesdale, nor that two others had done the same with Patterson. He and Bates were toe to toe in the center of a ring of spectators.

"You little upstart," Bates said redly. "Don't you know that brats should be seen and not heard—"

Suddenly Jeff knew that if he paid for it with his life he must have the satisfaction of smashing his fist into that sneering face.

Bates leaped first. Jeff started to duck a terrific right, but it was too late. Bates knocked him six feet, and as he arose, dizzy and groggy, Bates was standing over him.

Suddenly Jeff turned into a sort of machine. He'd get Bates. Get him—get him. He rose to his feet, hit Bates a terrific blow in the body just as Bates' fist came down on his head and knocked him down again.

This time Jeff bounded to his feet like a rubber ball. Two men were holding Holmesdale, but he didn't know that. He leaped in at Bates like a tiger. As he rushed, his head cleared, and he had the queer feeling that nothing could hurt him.

Round and round they fought. Blows thudded to each other's faces and bodies with sickening force. Jeff, feinting and ducking in and out like a slim streak of fire, landed oftener. A quick left brought blood from Bates' nose, and a moment later a glancing blow from Bates started Jeff's left eye swelling. Bates hit harder. Bates hurt, but Jeff didn't know it.

They were silent and intent as though it were a battle to the death. Hatred blazed out of their eyes. Their clothes became torn, faces swollen, their hair matted over their gleaming eyes. And all the while the ring of silent men watched.

Jeff's breath was coming in great gasps and Potty's chest was rising and falling like a bellows. His blood-smeared lips were twisted into a snarl and he had turned into a hulking animal with the lust to destroy his enemy.

Jeff was weak and groggy now. His body was a mass of bruises from the metal floor and he knew that he could not last much longer. Bates was constantly boring in with a terrific persistence that had an effect of inevitability about it. Jeff, circling around him warily, leaping in for quick blows, guarded himself. He knew that Bates was bigger and more powerful. It was now or never, for he was about through. He wondered subconsciously why the men did not interfere.

Suddenly he stopped his circling tactics and for a couple of seconds sparred warily. Then, as a right from Bates grazed his head, he pretended to be staggered. He lurched back dropping his arms. Bates leaped in like a wild man. In that instant Jeff

snapped into action. He ducked to the left like a flash, as a terrific circling right from Potty swished over his head. His left foot came forward and his right fist plunged into Bates' midsection.

The big fellow staggered back, half bent over, as Jeff straightened and swung his left squarely under Bates' jaw. Bates started to fall backward, and as he fell, a last sock from Jeff's right finished him. He dropped heavily and Jeff, swung off his balance by his own terrific swings, and weak as he was, stumbled over the form of his adversary and fell beside him.

The next second they were locked in each other's arms, a kicking, clawing mass, too weak to harm each other.

It was then that a half-conscious Jeff felt himself hauled away and he fought against it. For a moment he was a lunatic. All the worries of the past weeks, and the strain he had gone through in the last few days, had brought him to the breaking point. He fought fiercely, and the outlaw who was lifting him was forced to drop him. His head hit the metal floor. Ordinarily it would have but dazed him. Now, utterly exhausted, he felt himself slip thankfully into unconsciousness.

THE REAL BATES

CHAPTER XI

THE REAL BATES

JEFF came to and found Holmesdale and the blond American, who was still masked, washing off his face with cold water and dabbing some sort of an antiseptic to his many cuts and contusions. He lay there with his eyes closed for a moment, then turned his head wearily. He felt spent and exhausted and the future seemed a horrid thing to contemplate. He opened his eyes at last and said weakly:

"Some scrap."

"A real go!" agreed the lanky detective. "You ought to see Bates."

"Bates didn't do so bad," said the outlaw. "What do you do, hire only qualified scrappers for Independent Airways?"

Jeff didn't answer. His eyes were roving around the small, metal-lined room, and he was trying to orient himself. The door was ajar but he couldn't

see out of it. From various noises that seemed to be coming from far below him, however, the room seemed to jut off from the main chamber and to be high up, close to the ceiling.

"Just exactly where am I?" he inquired. "And where's all that machinery?"

"Fire escape outside the door," Holmesdale told him. "You're up next to the ceiling, right underneath a bunch of wires plugged into the wall."

"Greetings!" came a familiar voice from the doorway. Standing on the metal runway outside was Alexy. "I take charge—you eat," he told the American.

He sat down on the edge of the cot on which Jeff was reclining. Holmesdale seated himself on the other one. The two beds were the only furniture in the windowless chamber. In the ceiling was set a sun ray light. Evidently the whole underground power plant had the benefit of artificial sunlight.

"You and Bates are not friends, it seems?" the dapper little Rolvakian said with his flashing smile. "You fought well."

"Not well enough," Jeff said calmly, and suddenly as the thought of the treacherous pilots came to him once more, he felt the blood course faster

through his veins. Instantly, his exhaustion left him.

"Nice place you boys have here," Holmesdale said easily, leaning back against the wall. "Who runs it?"

"The greatest scientist in the world," Alexy stated calmly, lighting a cigarette.

"What's the idea of it?" Holmesdale asked casually.

For a moment Alexy hesitated. Then:

"I see no reason why I should not tell," he said evenly. "I can do no harm telling you."

"No?" Jeff said slowly. "What does that mean?"

"That we'll never live to repeat it," Holmesdale interpreted casually, as though the idea were one of only minor importance.

Alexy twirled his little mustache and blew a line of smoke toward the ceiling. Then he shrugged his shoulders and his boyish smile flashed out again.

Jeff almost forgot the horrible inference in his smile as he studied the debonair criminal. Again it seemed that his untroubled air and jaunty nonchalance were far more menacing than savage threats could possibly have been. There was no feeling in

the man before him, and whether or not two men were to be killed was nothing to him. He would be just as happy one way as another, and would doubtless execute them after bowing gallantly and smiling his commiseration. Was he a sample of the gang that held them captive?

Suddenly from without there came a low, deep-toned hum. It grew stronger and slightly louder as second after second ticked off. Short, staccato barks from various men apparently in different parts of the huge cavern indicated that a crew of mechanics were working together in widely separated places and signaling each other as they worked.

"Commotion, eh?" Holmesdale said. "What's up?"

"Another ship is coming down," Alexy said calmly.

"I see. One of Independent's, eh?" snapped Jeff, as that vast low hum seemed to make his ear-drums vibrate and the very walls of the room quiver.

"Why not?" smiled Alexy. "Very interesting, no?"

"What's the system?" Holmesdale inquired. "You said it didn't make any difference whether we knew or not."

"It does not," agreed Alexy, raising his voice to make himself heard.

Then suddenly the noise died away.

"She is down!" the Rolvakian chuckled. "Is it not wonderful?"

Genuine enthusiasm glowed in his black eyes.

"What part do you play in this?" Jeff asked him.

"I work under the master," Alexy said, and there was something in the way he said it that indicated more plainly than the words themselves that he was a worshiper of his chief.

Jeff, in the very shadow of death, felt a sort of fatalistic recklessness come over him. What did it matter now? There was nothing they could do to save themselves. Death seemed such a certainty that he accepted it as calmly as he would the setting of the sun. There was nothing he could do; so why worry?

"Well," he said, "we're still waiting to hear how you do it."

"The last secret no one ever will know," Alexy told him. "Even I do not know it. That is the master's. You saw those large turbines?"

"I just noticed them," Jeff told him. "I was watching Bates, the—the rat!"

"They are driven by mercury vapor and they drive the biggest generators in the world," Alexy told him. "The biggest transformers in the world then change the current to high voltage, do you see?"

"Uh-huh," Jeff told him, his mind keen and cool. He had a hunch somehow that a miracle would happen—that perhaps not only would he learn all about the deadly work that was going on there under the Mohave Desert, but that he might get safely out. He listened eagerly.

Alexy, as proud as a boy with a new toy, went on.

"You saw those huge wires?"

"Uh-huh," yawned Holmesdale.

"They are stretched underneath the ground," Alexy explained, "and the energy—more energy than has ever been carried by wires before—goes through them. Electric mirrors direct the rays in the proper direction. It is simple, not so, by that system, to hit a ship?"

"I see," said the absorbed Jeff. "Your chief has found the electrical compound of some ray, huh? What does it do when it hits a ship? That's what I want to know. It doesn't hurt anybody, the motors all go dead—"

"That is it," Alexy said proudly. "It polarizes the electric motors and they cannot work as long as the ray is on them."

For a moment there was silence. The triumphant Rolvakian looked from one to the other as though seeking applause.

"I see what happens now," nodded Jeff, "but how is the ray made? That's what I want to know."

"I should like to know myself," beamed Alexy, "but that is the master's secret."

"The master?" Holmesdale asked quietly.

"My countryman, the greatest scientist in the world."

"What is his name?" the detective asked, his eyes twinkling with unaccountable humor.

"That I cannot tell you."

"Then I'll tell you," chuckled Holmesdale. "His name is Sergoff."

"How did you know?" Alexy asked, off his guard for a moment.

"He left Stalgrad, taking you with him, about six months ago. The Rolvakian police were worried over his absence, because they knew that he was somewhat insane and irresponsible. And they don't like to see him in company with a criminal like you."

Alexy had recovered from his momentary surprise. "You have guessed his name," he said coolly. "But it makes no difference."

"How long has this outfit been here?" Jeff demanded.

"It took four months to build this little nest," Alexy said airily.

"Why was it built?" Holmesdale asked him. "To destroy all mankind?"

Again Alexy shot a startled glance at the detective, this time with a faint hint of fear in his expression. Jeff wondered how much Slats knew.

"Adjoining this plant," Alexy went on, "all underground, is one of the greatest laboratories in the world. For more than a year we worked outside, then for two months more inside, and finally—well, you know."

"Finally you went to work on airplanes," Jeff said. "Why? Got a grudge against us, or just trying out your contraption?"

"Would you not like to know?" smiled Alexy.

"I do know," Holmesdale said indifferently. "But you won't get so far. Not so far."

Alexy stared at the detective and for a moment their eyes held.

There had seemed to be absolute silence in the main power room for the last two or three minutes, but now footsteps sounded on metal, coming closer. They waited expectantly, as though the footsteps had extraordinary significance. A second later a figure filled the doorway.

"Alexy, the chief wants to see you," said Potty Bates. His eyes swept the room scornfully and his bruised and battered face had an ugly expression on it. "I'll take care of these bimbos while you're gone."

"I shall tie them," beamed Alexy, "to see that there are no more fights."

Bates dropped his hand to his waist. The butt of a gun was peeping from his shirt just above his belt.

"I have one of your little squirt guns with me," he said significantly. "Don't be frightened on my account."

"Very well," smiled Alexy. "See you again soon. *Au revoir.*"

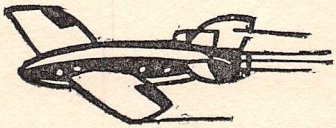
His footsteps echoed down the metal scaffolding without, and the silence in the room was like a physical substance shot through with such utter menace that Jeff felt prickly. He seemed stifled,

somehow, and his heart was pounding like a racing engine.

Bates went to the door silently and looked out. Slowly he closed it. Holmesdale leaned forward gradually and Jeff knew that he was taut and ready to act. Jeff himself, his heart filled with dread, lay motionless on the bed.

Slowly Bates turned around to face them and his face was transformed. There was a wide, joyous grin on it and his eyes were dancing.

"Don't say a word until I tell you all about it," he whispered swiftly. "We've got a chance to take these eggs, and take them right!"



THE CHIEF ESCAPES

CHAPTER XII

THE CHIEF ESCAPES

JEFF fought to comprehend what was happening.

"What do you mean?" snapped Holmesdale.

"Don't you understand?" Bates asked him, coming over to the bed. His eyes were on Jeff as though pleading for forgiveness.

"You're—you're not one of them?" stammered Jeff.

"They think I am," Bates whispered, "but I'm not. I had to act as I did because I was on trial with 'em. I had to prove to 'em that I hated you and hated Independent Airways. That's the reason I started insulting you the second you came in, and that's the reason I jumped on you and fought you until I couldn't stand. What a scrap that was!"

A warm glow swept over Jeff and suddenly the world was a different place to live in. A thousand

thoughts swarmed in his brain and a million possibilities danced before his mind's eye.

"But how on earth did you get on to the fact that the ranch houses were the source of all the trouble?" Bates asked.

"Slats here," Jeff said. "Slats figured that the source had to be from the ground, that it was limited in effect, and that we'd find the spot somewhere in the middle of the Mohave area."

"Enough of that," Holmesdale cut it. "We haven't much time. Tell us how *you* got here, Bates."

"Well, I was wrong in a lot of things, and maybe I'm wrong yet," Bates whispered, "but here's what happened. Pat and I felt uncomfortable because it was our ship that suffered most of the time, and so when you two were definitely suspicious, I lost my fool temper. I wasn't entirely wrong on that. I felt as though I, John Bates, ought to be above suspicion—"

"From our point of view nobody could be," Holmesdale stuck in quickly.

"Anyway, that's that," Bates went on. "I lost my temper. We stowed away in the ship because we wanted to clear ourselves, and I had the same

idea you did of the source of the trouble. I didn't know what was happening, but I felt that there was something here in the Mohave that was the center of the whole business. We stowed away to see whether the ship would be tampered with without us running it, for one thing, and to see whether the presence of Jeff and Munson in the ship would make any difference.

"I hid close to a motor with a couple of magnets and detectors to see if I could find out just what was affecting the motors at the moment of stoppage. Then, as we were coming down in parachutes, I saw just a flash from a certain spot on the ground, and I figured that the energy, whatever it was, that was neutralizing our motors might be coming right from there. By that time I had the ray partly figured out as the only possible means of polarizing our motors. To make a long story short, Pat and I started on our way back here, chased by the police.

"We lost the police in that storm, out of St. Louis, and deliberately landed at this funny bunch of ranch buildings with a very definite idea in mind. The whole world knew we were under suspicion, and my reputation as a scientist, I suppose, is not small on account of this Farley metal. So I just walked

into the house and calmly told 'em all about it. Took a shot in the dark—told 'em that I was ready to join up with 'em."

"Some nerve, I should say," grunted Holmesdale.

Jeff, wide-eyed and utterly absorbed in what Bates was saying, suddenly felt so ashamed of himself that his eyes dropped.

"I'm sorry, Potty," he said huskily.

"That's all right. I don't blame you," the dynamic Bates told him. "We got away with it. Nobody admitted anything. Three of the men in this ring are foreigners, and the other one an American. I also had an interview with the big boss. He was masked. We were taken down in here for two reasons. One, that our bluff happened to hit the nail pretty squarely on the head. This meant that we were very dangerous to have at large. The other reason was that maybe we could do 'em some good. They are undermanned—can't get men who know enough and are crooked enough really to operate their own plant correctly. So here we are.

"I was helpless to stop the shooting of that torpedo ship out at you, and never in my life have I gone through moments like that, even though I

knew that Alexy had orders to let you out alive, if possible, and bring you down here.

"The conspirators were in the middle of a debate on whether to blow up their whole plant and disappear, or not. The fact that you two were hovering above 'em for two days, and that I had arrived knowing apparently everything about it, had them scared to death. Some big bug arrives to-night, and they'll decide then what to do."

Suddenly his rugged face set in grim lines.

"And this big bug," he said savagely, "is the bird I want to see. He and this Doctor Somebody-or-other, who is the chief bandit, are the boys we want. The man who is coming is the financial backer of the whole works and the doctor has the scientific secret. I'd like to know the exact formula of that ray! And I'd like to know who he is."

"His name is Sergoff—he's a Rolvakian," Holmesdale said. "But hurry on with your story. Somebody may be coming up here any minute."

"There's very little more to shoot," Bates went on, after a glance of amazement at the lanky detective. "I began to win their confidence, but they weren't sure of me. That's the reason for our fight. I convinced 'em, then, that I hated you—and that

you hated me. In the last few minutes I've learned more than I've learned in the last twenty-four hours.

"I've learned in the first place that none of the underlings know why they have worked on Independent ships almost exclusively and on the United ships only occasionally. I tried to find out whether there was any international aspect to this thing, but apparently there isn't. This is the only plant of its kind, as far as I know, and this ray can't operate over a distance of more than three hundred miles and then it's hard to get a focus on the ship.

"They have a system of radio detectors that can spot a ship within a few feet, at a range of three hundred miles. But it takes skill to work the electric mirrors.

"In the second place, I learned that the invention was perfected only about six months ago and then it took four months to build this plant. The doctor is a nut; there isn't any doubt about that. At the same time, he's probably the greatest scientific genius alive. Why he is operating against Independent and United, is something that none of the men know, unless Alexy does, and I haven't had a chance to talk with him. He's the pet of the doctor

and apparently, among his other remarkable qualities, is no mean electrical engineer."

"Well, then, here's where we stand," Holmesdale put in swiftly. "You know that there is no other plant like this, that the doctor is a nut, that there is an individual who either is the financial backing or represents it, and who's coming to-night to discuss whether or not to dismantle this plant or blow it up and skip to safety. Did you have any particular scheme in mind for us?"

"Yes," Bates whispered, his eyes aglow. "We want to get the doctor's secret, and we want to get this financial power. This guy—call him 'X'—can explain the whole plot. The doctor can explain how he does it. Do you realize what that will mean to this country?"

"Sure," Jeff nodded. He was sitting up now, and felt he as though he had the strength of ten men in his revived body. "If this country spotted power plants like this at various points over its surface, especially along the coasts, we'd be safe from attack forever."

"Absolutely," nodded Bates. "Just shoot this ray in circles through the air and bring down every ship."

To Jeff's imagination, the possibilities were unbounded. Any future war, if people were so foolish as to have one, would be fought exclusively in the air. The largest ground army in the world was only ten thousand men, while air forces often reached five hundred thousand airplanes.

"Why, gosh!" he exclaimed. "This thing would make war impossible!"

"Of course."

"Suppose this doctor represents some other government and is just testing out—"

"No. This isn't inspired by some other country," Holmesdale informed the others. "Dr. Sergoff is a trouble-maker even in his own country. The Stalgrad police told me in that phone call—" he looked at Jeff—"that Sergoff was an Equalizer. You know that outfit: want to destroy all civilization, get back to nature, and give everybody a fair start. Evidently this ray is Sergoff's first point of attack. With it he intends to cripple transportation and throw the world into chaos. But somehow, his financial backer—the big bug who's coming tonight—is making some more special use of the ray. Going after United and Independent ships. Probably running them down until they depreciate in

value and can be bought up for next to nothing. The big bug is our chief menace right now. Imagine his fostering an invention that might destroy the world! And undoubtedly for selfish ends. Who can he be? He must have all kinds of money!"

"I don't know," puzzled Bates. "He's certainly operating openly—as though he had protection."

"No use racking our beans," concluded Holmesdale, looking to Bates. "What's the next step?"

"Well—" Bates drew a long breath—"they've got two more torpedo ships, here, that shoot a ray similar to the one that polarizes the motors. You two know how deadly it is. The doctor can apparently make up a ray to do anything—turn metal into molten liquid, or make a man transparent. That's his specialty. The ray that was shot out of the torpedo ship is just an adaptation of his other one and doesn't take nearly so much power.

"Now here's what I figured. There's a secret entrance to this place that I don't know anything about—a tunnel that runs for miles. That'll be the entrance the big money chief uses. I know where they will meet. This gun I've got in my jeans shoots another of Sergoff's rays that paralyzes a man's nervous system for several hours and makes him

incapable of movement. I can get hold of two more, one for each of us.

"When this conference takes place, the whole works will be undermanned. I'll know where nearly every man is, Sergoff and this backer will be in a certain room. Now my scheme is this."

In a few seconds he had outlined his idea. Holmesdale's remarkable mind grasped the possibilities in an instant and a wide-eyed, silent Jeff listened with his heart in his eyes.

It was a desperate plan, yes, but nevertheless it was a joyous young pilot who said, as footsteps approached down the runway, "Now I feel like a man again."

It was just one hour later when Bates, who had left the room upon Alexy's arrival, returned. Jeff took one look at the big pilot's eyes and it seemed to him that a sort of a glow emanated from them and suffused him. Bates gave a barely perceptible nod.

"The big boy has arrived!" Jeff thought, with pounding heart.

Bates walked over toward Alexy who was lounging easily on a bed. One of those guns was in a holster at the Rolvakian's hip, but he had no chance

to use it. In a split second one of Bates' arms encircled his head, shutting off the Rolvakian's mouth, and the other arm was around his body. Jeff leaped forward and held the wildly wriggling legs.

"I'll do the tying," Holmesdale said, a lilt in his voice that was seldom there.

In less than ten seconds, in an almost absolute silence, the Rolvakian was tied and gagged.

"Now I'll get Pat," whispered Bates. "Here are your guns. Hide them until I give you the word."

"Listen," Holmesdale said eagerly. "We haven't eaten for a long time. Why can't we go out with you, apparently under your guard, to get something to eat? Then we can help you."

Bates thought a moment.

"O. K.," he said.

With Jeff leading the way, Holmesdale behind him, and Bates bringing up the rear with his gun out, as though shepherding the captives on their way, the party went out on the metal platform. Five men were puttering about the vast mazes of machinery.

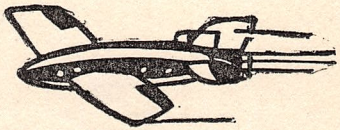
"All the others, except Sergoff, are up above ground in the ranch house," Bates whispered,

"which is a lucky break for us, if we can get rid of these boys."

They climbed down zigzag ladder-like steps to the floor of the vast cavern.

"Let's take a chance and separate," Holmesdale whispered. "Then we can get three at a time. How far will these guns work?"

"Only within a radius of ten yards," Bates told him, glancing about him nervously.



GUN WORK

CHAPTER XIII

GUN WORK

JEFF was like a man in a dream. If the slightest thing went wrong now they were utterly ruined. Right out in the open, where the approach of anyone would reveal the entire scheme, they had to get rid of those men who were in plain sight of each other.

"Jeff, get that one over there while he's behind that machinery!" Bates whispered.

Jeff drifted over toward a huge transformer set close to the wall. The mechanic's head was barely visible through openings in the structure of the transformer, and his back was to the wall.

"Some plant you've got there," Jeff said calmly as he came within sight of the man.

The masked mechanic looked up quickly. Safely behind the machinery now, Jeff pulled his gun like a flash. The next second, as a ray of light darted forth from the muzzle, the mechanic fell without a cry.

Two seconds later, Jeff, invisible to anyone else on the floor, although he would have been in plain view of anybody from the various scaffoldings that ran around the cavern, had rolled the man's body underneath the machinery.

His gun hidden once more, he strolled with outward nonchalance but such inner excitement as he had never felt before, out into plain view again. There was a man twenty yards away from him who was watching him curiously. This one was standing almost in the exact center of the floor and in plain view of everybody else on it.

Suddenly a strangled cry came from a corner of the power plant. Holmesdale had got his man. The masked mechanic, toward whom Jeff was strolling, turned like a shot. His jaw dropped. Jeff leaped forward. He saw out of the corner of his eye that Bates was over at the other side of the room. The mechanic wheeled, jerking out his gun. Fortunately for Jeff, it stuck for a moment in its holster. As he saw the gun in Jeff's hand he shouted. His voice reverberated like a clap of thunder from the recesses of the cavern and its echoes had not died away before Jeff's gun spat light. The man dropped like a log.

"No time to waste! We've got 'em all," Bates shouted. "Hide that fellow!"

They had taken all the men completely by surprise.

"Where's Pat?" panted Jeff as he lugged the mechanic's heavy body into the shelter of one of the turbines.

"He's up the passageway trying to close off the exit to the house and cut those men off. Got to wait for him now before we go to the council room. Wonder if Sergoff heard that shout."

At that moment Patterson appeared at the top of the stairs down which Jeff and Holmesdale had made their original entrance.

"O. K.," the slim young pilot shouted exultantly. "I jimmed her up plenty. It'll take 'em an hour to get back in here!"

They waited for him at the bottom of the stairs.

"Gosh—do you suppose we're going to get away with it?" Jeff asked, his voice quivering with excitement. "Sergoff must have heard that shout. The guy yelled 'Help' as plain as day."

"I hope not," Bates muttered. "The room where they're meeting is about ten yards off this place, and there are two doors."

"Sure we can get in?" snapped Holmesdale.

"Yes, although one door may be locked to make sure that this big bug isn't seen by anybody," Bates told him. "I've got an idea. We'll let Alexy in."

Five seconds later their minds were made up. Back to the room they went, and released the Rolvakian.

"Listen," Jeff told him, his gun out, "you're going to do exactly as we say."

"And if you don't," Holmesdale interjected, "it won't be one of these toys that will be used on you. Understand?"

The black-eyed Rolvakian twirled his mustache urbanely.

"I'm in your hands," he said with a courtly bow. He seemed to have no emotion about the matter whatever, and he led the way almost gaily back through the factory. Jeff's gun was at his back.

They went down the runway to the corner of the room and then entered the passage through an unlocked door. At the other end of the straight vista was another door. Alexy tapped on it lightly.

"Alexy, Dr. Sergoff. May I see you a moment? I have important news."

For a moment there was utter silence from with-

in. Then a gruff voice said something in a low tone and was answered in louder fashion by the guttural tones of the bearded master scientist.

The door opened outward. As it started to swing, Jeff flung it open all the way and leaped forward gun in hand. He got a momentary impression of a pair of glittering black eyes shielded by thick spectacles, staring at him. Across the small room, which was furnished with a few chairs, a table, some filing cabinets and a desk, he saw a door closing. Doubtless the man who was the hidden power behind the whole project had disappeared behind that door! But Sergoff, the master scientist, was still there. He staggered back as Holmesdale leaped forward. Bates was guarding Alexy and Patterson was behind Holmesdale.

Jeff never knew how it happened. They had decided that they did not want to paralyze the scientist for they needed the information he could impart on the spot. Sergoff leaped backward with catlike agility. The next second he had whirled like a shot and with incredible speed had reached the closed door. He flung it open—catapulted through. Jeff was four or five feet behind him. The next second the door had clicked shut.

"It's locked!" gasped Jeff. "They've slipped us as sure as you're alive!"

"They have not," roared Bates. "This leads to the catapult ships and I know another way to get to them. They'll go for those ships, now that they know the jig is up. If they don't, we'll get out of here, get in another ship, and have half the police in the country covering this area. They'll never get out of the secret tunnel."

"They must have gone for the catapult ships," Holmesdale said swiftly. "They know the jig's up now, but they don't know what's happened down here, and they'll take the quickest and surest method of getting to safety."

They took time to bind and gag Alexy again and then rush down the runway across the floor of the cavern and into another passage that led to the base of the huge cylinder that Jeff had seen when he and Holmesdale had gone through the shed. They burst into a big room on the floor of which was a mass of complicated machinery, just as a deafening clanking started in the maze of levers and arms. A smooth, round shape that had been in the center of the electrical catapult shot upward. Sergoff and his mysterious backer had got away!

A second ship was off to one side, hung nose up by ropes, in a position where it could readily be swung into the catapult itself.

"Two of us go in this baby and chase these birds, and two of us go out the other way and get the police," gasped Bates. "Pat knows his way around here and I know how these ships work."

"You and I in the ship, and Slats and Pat get out the other way!" snapped Jeff, his eyes blazing.

"O. K.," roared Bates. "They'll probably be waiting for us up above, ready to burn us to pieces, if they can—"

"You mean to say we can't outfly 'em and outfight 'em?" interrupted Jeff, as he helped Bates haul at a rope.

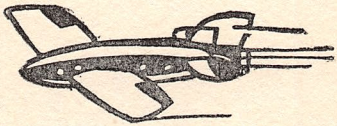
"I'll say we can!" Bates returned exultantly. "Climb in, my boy, and Pat will send us off."

The wildly excited pursuers, rushing around the floor of that vast cavern, were drawn with tenseness. They would have been even more strained had they known that almost at that exact minute, a thousand miles eastward, no less than seven passenger and freight airplanes, five of them belonging to Independent Airways and the other two to United, were spiraling down for forced landings,

and that all of their motors had gone dead at the same time. The underground power plant in the Mohave was branching out over the country, and had the exultant Jeff, certain that the mystery was close to solution, realized it, he would scarcely have been the sanguinely joyful demon that he was as he and Bates leaped for the smooth, round aërial projectile hanging alongside of the wall.

"So long!" yelped Jeff, as he followed Potty Bates into the torpedo.

"Good luck," called Holmesdale. "The secret of the whole blasted conspiracy is right above you; so don't spare the horses!"



HUMAN TORPEDOES

CHAPTER XIV

HUMAN TORPEDOES

BATES, his hair a good imitation of the thatch of a wild man of Borneo, was already through the long, thin door in the side of the airplane. It was about two feet wide and paralleled the fuselage of the ship. Jeff had little room in his mind to marvel at this new and ingenious thing in aircraft, but nevertheless he was aware of a feeling of utter surprise as he saw two tiny steps. The space inside the huge torpedo was barely four feet in circumference and its walls were circular, following the outlines of the exterior of the ship.

"We lie flat when she's in flight," Bates told him cheerfully. "Wedge yourself in on the left. You can fly it after we get started and I'll handle the ray if necessary."

Hanging from the ceiling, as it were, Jeff found himself standing upright, wedged against the wall on his left. Above him—it would be ahead of him when the ship flattened out in flight—within easy

reach of his hand, was a small board with three tiny levers on it, set into what would be the bottom of the plane when it was in flight. To the right of this board and in front of Bates' eyes as he squirmed to a position of comfort alongside of Jeff, there was a small button and one lever about six inches high, which evidently worked from side to side on a swivel joint.

"O. K.—swing us in," Bates shouted as he closed the door.

"Right!" yelled Holmesdale. "And don't be surprised at the company Sergoff keeps! If you lose the other torpedo ship and find a big air yacht, watch it closely!"

Jeff felt the plane being swung into the catapult while in its upright position. But in spite of the new thrills crowding in upon him, he found time to wonder at the uncanny Slats Holmesdale. Big air yacht! What did that mean? Well—it was enough that Slats mentioned it. He'd watch for it!

"What are these things for?" he found himself saying.

He was like a man in a dream, with wonders coming so thick and fast that his stunned mind was unable to comprehend them; but beneath that men-

tal chaos his brain was working clearly and surely upon the definite problems before them.

Bates, as though all the fire and spirit within him had blazed into full flower, was like a joyous madman. His vitality enveloped Jeff with warm contentment. He had a superman at his right hand.

"Left lever moves from side to side controlling ailerons," Bates said in muffled tones. "Right-hand one works forward and back for elevators. Middle one can lock both the others into position and hold em there."

In a trice he had shown Jeff exactly how to guide the torpedo. Then Jeff saw him work one of two levers on what would be the ceiling when the ship was flying level.

"One is the parachute arrangement and the other works the windows, see?" Bates told him. As though by magic a small section of the walls around their head slipped back. A circle of tremendously thick, clear glass about twelve inches wide leaped into being as the thick covering slid back. "Compass is up in the nose. See it?"

Jeff had to throw back his head to see a shining radio compass, but it would be right before his eyes when the ship was in flight.

Bates was looking out the window, evidently waiting for Patterson to give the signal that the catapult was ready. The ship settled down into the arms of the machinery as though crouching for the start.

As his elbow dug into the cloth surface around him, Jeff realized that there was some marvelous arrangement of springs between the surface of the ship and its lining. "You could hit something pretty hard in this and never get a bump," he thought to himself.

He saw Bates nod and the next second the windows became opaque.

"Now wait a minute," Bates told him, "and don't get scared. For this catapult thing we've got to be packed in solid."

He pulled a little cord that was dangling close to him and instantly the interior of the ship seemed to close in on them. A low whir came to Jeff's ears.

"Electrical air pump. We've got to be wedged in tight," Bates told him jerkily.

It took barely fifteen seconds for the walls to close in until the two men could scarcely move a muscle. They were wedged in as tightly as sardines in a can.

"Get set," Bates told him huskily. "Right?"

Jeff nodded. He was utterly speechless. The next second it seemed that some far-away explosion had shaken him slightly. Close in the embrace of those pressing walls his body couldn't move, but there was a queer feeling in the pit of his stomach. He had no sensation of speed after that, but suddenly, as he realized that he must be far above the earth, he felt an impulse to struggle like mad. He was helpless—bound hand and foot—then the walls drew away and he felt as though he could breathe again.

The next instant that circular window came in sight once more and Jeff was gazing stupidly at a white cloud that whizzed by them so fast that it was like a white blur.

"We're two miles high already," Bates said. "Here go the wings. Got to flatten her out, if we can. We've got to see."

He moved a little lever, and through the circular glass Jeff could see those two flipper-like appendages snap from the walls into their proper place.

Gingerly, Jeff touched the lever that controlled the fore and aft stability, moving it scarcely a sixteenth of an inch. With a jar that banged his head

against the soft cushions above it, the ship started leveling.

"Atta boy!" Bates told him, his eyes flaming into Jeff's. "She'll fly like a dream. Now let's see what's what."

His eyes searched the sky above and below as Jeff experimented with the handling of the ship. It reacted in unbelievable fashion even to the most delicate move of one of those tiny levers.

They winged through a cloud, going like a bullet. A second later they were out into the open again.

"I see 'em! Three miles higher than we are. Didn't wait to try to knock us off. Maybe one of these rays won't work against one of these ships. Gosh! What's happening? Look over there!"

Jeff had looked up at Bates' words, and high in the sky but barely visible even to those who were looking for it, the torpedo ship bearing the doctor and his mysterious backer was streaking upward and toward the east.

He forgot that momentarily, however, as he followed Bates' pointing finger. Two or three miles farther eastward and possibly a mile higher than they, a swarm of ships was speeding toward them. Bates had the glasses to his eyes now and he was

cursing the searchlights that were playing on them as he strove to see clearly.

"Good lord, Jeff, what's that ship in the lead that's climbing as fast as we are?"

The torpedo ship was now working on its rocket principle although the explosions were barely audible, and Jeff had it angled upward at about fifty degrees, following the trail of the doctor.

He took the glasses from Bates' shaking hand and trained them on a huge object that was climbing its way upward with almost the speed at which they themselves were traveling. For a moment he could scarcely believe his eyes. Something that looked like a huge steel sausage with a row of tiny flippers, like the fins of a fish, was flashing upward through the night. Only those ridiculous-looking appendages broke the smooth, shining silver contour of what looked like a slim dirigible without motors or cabin. Then, like a flash, the vague rumors that had come out of Washington over the past several years occurred to him.

"That looks like the new ship that the Government is supposed to be developing," he said jerkily. "You know—the thing they called the armored sausage that nobody believed they had, that can

travel seven or eight hundred miles an hour and works on gas—those other ships are police ships."

"Jeff, that thing is taking after us!"

Instinctively Jeff knew what had happened. Someone had seen the battle he and Slats Holmesdale had had with the first of the torpedo ships, had radioed the news of the inexplainable occurrence, and the police had hurried to the spot. Evidently, Washington had decided to release her long hidden invention because of the importance of the case.

"They missed the first ship as sure as you're alive and they think we're outlaws!" Bates gasped in his ear.

"Good heavens, Jeff, what are we going to do?"

The speed at which they were traveling was causing events to happen almost too fast for Jeff's excitement-drugged mind. That swarm of army and police ships, barely half as fast as the one in which they were traveling, was almost squarely above them now, and higher than they were was that sinister steel craft. It was easily a hundred feet long and traveling at a speed almost as dazzling as their own. The army and police ships made way for them, but from a dozen of their snouts the deadly

spotlight ammunition was ripping and tearing at the sides of their plane.

"What about the glass?" gasped Jeff. "If they hit that—"

"Even that will stand several shocks," Bates told him, his face drawn and white, "but it will break eventually. Look! What's that big thing shooting?"

As though in answer to his question a terrific shock threw their torpedo ship heavily to one side. The compass wobbled wildly and for a second their ship whirled crazily through the sky, completely out of control.

"They must have a gun that shoots bombs instead of bullets," Bates said weakly. "They didn't cripple us, but we can't stand many more of those—"

Jeff fought the ship with all the skill he possessed and righted it. It had halted their upward course and now the sky seemed full of ships, like swarming gnats, diving and zooming and shooting a steady hail of bullets at them. All that was saving them was the number of enemy ships. These had to hold their fire for fear of hitting one of their own men. Only two or three at a time dared to send out their deadly rat-tat-tat.

Jeff was slinging that marvelous torpedo ship through the air so rapidly that it seemed as though there were a thousand of them as it twisted and turned and dived and zoomed like a frantically fighting rat encircled by its enemies. And up above them the real criminals were rapidly disappearing into thin air.

Suddenly Jeff's mind was made up. Even that steel monster, now but a short way above them and circling warily, waiting for a shot when the torpedo ship got out into the open, must be defied. It could not catch them eventually, but it could follow and perhaps be in at the death if they ever caught Sergoff's plane. He must run the gauntlet of all those guns!

He suited the action to the thought. His jaw set and his face white, he put the torpedo ship in its maximum climb. Twisting and turning wildly to spoil their aim, he nevertheless winged his way steadily upward as Bates threw the power on.

The thudding sound of spotlight ammunition, which had always been thought to be so utterly deadly, was like the roll of a drum. Jeff wondered what it was doing to the surface of the ship.

They could not use the ray against men who

were trying to help them and there was no way to let the Government men know their real identity.

Upward the flying torpedo flashed until finally it was above all its enemies except the mysterious sausage plane, and now Jeff was forced to maneuver incessantly as twenty ships zoomed upward and concentrated their fire on him. He threw his ship squarely underneath the big army mystery plane and for a moment there was respite from the ripping, tearing fire below. The pursuers did not dare plow their bullets into their own ship.

But the respite was brief. Looking upward Jeff saw an opening appear in that great silver monster and just in time he threw his ship into a bank that made his own head swim. What seemed like dozens of projectiles about the size of large eggs spewed from that opening. It was one of those that had hit them before.

Now there was another opening—then a third. In a moment there would be a shower of those deadly, concentrated bombs.

"Got to use the ray! Let 'em jump in 'chutes!" Bates shouted, a tinge of hysteria in his voice. "Stand her on end, quick!"

In an instant the darting torpedo ship pointed straight up.

"At the tail!" Bates fairly screamed, and Jeff realized his intention in a moment. The explosion chamber for the bombing ship would be in the very rear and if that could be cut off—but would the ray work?

It did. In less than a second that line of light leaped forth from the nose of the torpedo ship, directed at the tail of the larger craft now only a few hundred feet above them. The ray of light darted upward and the tail of the great ship above was cut as cleanly from the main body as though it had been done with a knife. The ship faltered and its nose dipped downward.

As the torpedo ship flashed triumphantly by, the great craft's huge parachute snapped forth from the upper surface, and the crippled ship slowly righted itself.

Jeff, twisting and turning through the air, but going ever upward, saw three openings appear in the side of the armored craft and those deadly missiles poured forth again, but now he was not frightened. He was already nearly a mile above them, and only one stunning shock that temporarily staggered

his ship came from their fire before the two Independent pilots found themselves out of range.

For a second Bates seemed to slump.

"Gosh!" he whispered huskily. Beads of perspiration were standing out on his face.

"Where's that other ship?" snapped Jeff.

It was as though their escape from deadly peril had completed his transformation into a man of steel. The entire incident was completely blotted from his mind, temporarily, and fierce concentration that would brook no defeat had possession of every faculty.

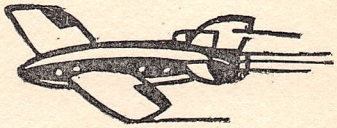
His spirit kindled the old fire in Bates, and the big airman snatched at the glasses and again searched the sky.

As second after second went by, Jeff's heart sank. Had they lost their prey? Was all their work for nothing?

"Got 'em!" yelled Bates suddenly. "See that cirrus cloud up there? Well, something black just shot across it so fast that it can't be anything else. They're two miles higher than we are, but they're flying level, and they're flying east. Fly level and I'll keep the glasses on 'em. They've lost sight of us or they'd still be climbing!"

"Great!" shouted the transfigured Jeff. "We've still got a chance! Gosh, if this baby only had a phone!"

"Well, it hasn't, big boy," roared Bates. "So I guess we're still on our own!"



FIVE MILES HIGH

CHAPTER XV

FIVE MILES HIGH

JEFF had the ship level now and at close to eight hundred miles an hour it was streaking through to thin air four miles above the earth.

Bates kept the glasses steadily on the fugitive ship above and ahead of them and for many minutes there was complete silence save for the low whir of the air compressor and the muffled explosions from the rear of the ship.

Lying prone as he was, Jeff had the feeling of being more a part of his amazing craft than he had ever felt before in any airplane. Gradually, as some of the mad thrill of the last few hours subsided within him, his mind became more placid and he had opportunity to think things through. He hadn't hurt anyone in that huge army fighting plane because he had only cut off the explosion chamber in the rear of the ship. Nevertheless, the news that a deadly torpedo ship was flying east would have blanketed the country by now. The higher ship,

carrying the real culprits, had evidently completely escaped observation.

It was true, Jeff reflected, that the plotters' ship was so much faster and more deadly than anything that could be sent against it, and was so nearly immune to any weapons that could be brought to bear on it that there was not a great deal of danger. Nevertheless, a hundred possible complications, any one enough to give an opportunity for the scientist and his superior to escape, loomed ahead of him and Bates.

He tried to visualize what must be happening throughout the country right now. The mysterious forced landings of the Independent and United ships had been a leading topic of conversation and speculation for weeks. Now, doubtless, the news that a deadly torpedo ship had escaped the Government pursuers, and was somewhere at large, must have started a widespread panic. But he could not realize, as he whizzed through the air, that millions of people were watching in terror for his ship—dreading its possible coming.

"There's one thing sure," he said finally to Bates. "By this time there's some tall action afoot down in the power plant."

"Sure," nodded Bates. "They'll have police going over that by now, and if nothing happened to Holmesdale and Pat, they've got full information about both ships. That's a break for us, maybe."

Jeff was to find out later that Bates' idea was well founded. Every one of the thousands of ships in the air, commercial, army, police, or pleasure craft, was being notified even then, and glasses were searching the sky to locate them.

On and on drummed the torpedo ship, following that speck in the sky. With every passing minute it seemed that a new searchlight leaped into being below. Jeff was angling upward slightly in order to avoid running into transcontinental ships, if he could, and now they were a little more than five miles high. He lost a little ground in angling up, but it seemed wise as long as the other ship stayed in sight.

"No danger of our losing it, is there?" he inquired.

Bates shook his head, the glasses still glued to his eyes.

"Ride on, my boy," he said. "I wonder where they're going?"

"Search me," Jeff returned. "I wonder who the

big bug is who's taking this ride with Sergoff. That's more important."

"I'll say it is," nodded Bates. "I'd hate to be that guy when and if we catch him."

Silence fell again as the tireless ship sped on its way. Jeff looked down and it seemed that a million glowing eyes were looking up at him. The searchlights were sweeping the sky and occasionally one shed its light on them, but apparently they were going so fast through the now cloudless sky that they had not been picked up as yet by the observers.

"Wait a minute!" barked Bates suddenly. "Swing her north and don't get any closer!"

"What's up?" snapped Jeff, and suddenly a tingle ran up and down his spine. He could not even see the fugitive plane.

"They're at least thirty-five thousand feet high and—good lord, if there isn't some big ship even higher than they are that they're making for!" Bates said jerkily. "Or at least they seem to be. Keep flying north. We can't let 'em see us—"

"Does Sergoff know that you knew anything about handling these ships?" Jeff demanded.

Bates shook his head absently.

"No, Pat and I wormed it out of one of the other

guys. Jeff, I don't believe they've got an idea in the world that they're being followed by a ship as good as theirs is."

"What's happening?"

"I'll tell you when anything does," Bates returned, "but they seem to be making squarely for that ship. It's a blue air yacht."

Air yacht! Slats Holmesdale had mentioned an air yacht!

Waiting to hear further news from Bates seemed to Jeff the most exquisite torture he had ever undergone. He forced himself to look down, trying to keep himself from asking a thousand questions. Below him it seemed that the air was thick with ships close to the ground. Northward the lights of Chicago gleamed along the lake front. They were not far from Canada.

"Half the ships in Chicago must be in the air," he thought.

His eyes skimmed the horizon. Everywhere—north, south, east and west—hundreds of tiny planes were getting into the air. All of the Chicago police airdromes seemed frantically busy. Had they been spotted? Probably not, he thought. A nation was being mobilized, that was all, to find out what

was what. In a short time the air would be literally combed at all altitudes and when that happened he and Bates would be in as deadly danger as the outlaws they were seeking.

Again that maddening question knocked at the door of his mind. Who was so wealthy and so powerful, and so much the traitor, that he would and could tie up the commerce of a nation?

"Yes, sir! That's what they're doing! Keep flying north!" Bates half shouted.

"What? For the love of Mike, don't be so mysterious!"

"The torpedo ship has got its parachute out and is dropping down on top of that blue air yacht—and it's one of the biggest ships you ever saw. But keep out of sight and we'll have 'em dead to rights with this ray," roared Bates exultantly.

"How do you know they haven't a million ray machines aboard the big ship?" Jeff demanded, his voice cracking with excitement.

"If they have, this ship will withstand it, and unless my eyes deceive me, that big ship is just an ordinary crate, no specially built baby."

"Slats mentioned it when we took off," yelped Jeff exultantly.

There was a silence of a few seconds and Jeff could contain himself no longer.

"What's happening?" he found himself saying.

"It's landing. Swing east again—I'm almost losing sight of 'em."

"Yeah?"

"Seven miles high, by the mighty, and they've found a mother ship to land on! Go up high and then we'll swing back."

Up and up the torpedo ship climbed as the two airmen discussed their plans excitedly.

"I can't see yet just what that big baby is, except that it looks like a yacht, as I said before," Bates concluded, "but unless I'm all off my base, it wouldn't have a Chinaman's chance against this ray. See what they were trying to do?"

"Sure," nodded Jeff, watching the altimeter. "Beat it away, get high—then their ship disappears and they come down in the big ship like ordinary, law-abiding citizens—and don't even stir a breath of suspicion."

"Except that we know Sergoff," Bates reminded him. "We're high enough. All right, big boy, let's shoot for 'em. They've turned east and we can catch up with them like a hare catching up with a turtle."

His words were no exaggeration. The torpedo ship bearing the two taut airmen lying side by side followed the big ship with the speed of the wind. Gradually it took shape before Jeff's eyes. It was a tremendously large craft.

"Good lord!" dropped from Bates' lips.

"What's the matter?" barked Jeff.

"Wait a minute. I don't even want to breathe it unless I'm sure. Dog-gone it, why can't I think straight?"

"What's the matter?"

"That ship's familiar to me some way. I've seen it as sure as shooting."

"Is it a three-way yacht?" Jeff demanded.

"I think so—painted blue. Can't tell much. Undercarriage isn't in sight, of course. Jeff, as sure as shooting it belongs to some wealthy egg—no man of moderate means could own it!"

"Well," Jeff reminded him, his heart pounding away like a racing motor, "naturally any bird who's running a scheme like this would have plenty of money."

"And plenty of power, too," Bates told him.

They were but three miles away from the big ship now, and going easily three hundred miles an

hour faster. As its outlines became clear to Jeff that sense of vague familiarity struck him, too. He could not place it, somehow, and never remembered having seen a blue air yacht, and yet his mind kept groping for some elusive recollection. It persistently eluded him. But that air cruiser held the secret of everything within its huge bulk. That was sure.

The torpedo ship was like an insect preparing to fight an animal, but what a deadly insect it was! They were within half a mile of the big cruiser now. There were dozens of windows along the side of the cruiser's fuselage but not one of them showed a spark of light. That was proof of guilt in itself. There was not even an adequate set of wing, tail, and nose lights—merely tiny gleams. Thirty-five thousand feet high, the big ship was prowling the upper air furtively! As Jeff thought of what that dark, menacing bulk might hold within it, his nerves began to jump and his muscles grew taut.

"Gosh, if we only had a phone," he groaned to Bates.

"We won't need one when they see us," Bates grunted. "Don't you suppose Sergoff knows the weapon we've got? He may not think we know how to use it—"

"He may even think we're two of his own men who escaped," Jeff told him, and it seemed that the thought struck Bates with stunning force.

"Gosh, I never thought of that. There's only one thing to do. That's to let 'em make sure we're no friends."

Suddenly a searchlight glowed from the top of the big ship. It was trained directly on them.

"They've seen us and are looking us over," Bates said as though to himself. "Boy, I bet there's a riot aboard!"

"This is the time to show 'em," Jeff said swiftly. "Shoot that ray—not at them, but to let them see it and to show them that we know how to use it, and intend to."

Obediently Bates' hand pressed the button. That line of light leaped forth, directly alongside the big blue monoplane. Abruptly the searchlight winked off.

Jeff circled round and round the bigger craft. Funny how that luxurious, swift plane seemed like a lumbering, clumsy behemoth of the air when compared with the torpedo ship. Did the great cruiser hold within it powers of destruction as deadly as that underground power plant had generated?

Were they preparing to annihilate their enemy by some means as yet unknown to the average scientist?

Minute after minute ticked off until the suspense became almost unbearable.

"If we cripple their ship with this ray they might jump individually and some of 'em get away," Jeff said finally. "What are we going to do?"

"We've got to make 'em surrender," Bates said slowly. Suddenly all outward excitement had left the shaggy-headed airman, as though all possibility of emotion had been used up in the last few hours. "What can we cut off to show 'em what we can and will do if they don't surrender?"

For a moment Jeff hesitated. To cut off the tail surfaces would cripple them completely, but in that case would they use the big 'chute to save the whole ship, or would they jump individually? In the darkness it would be impossible to know which jumper was the most important one to follow down, and those ships below could not be communicated with. Apparently no one had yet seen what was going on so high in the air, for none of the planes that were shuttling across the earth miles

below seemed to be paying any attention to them.

"I've got it! One of the superchargers!" he said suddenly.

Three huge, round mounds on the top of the ship indicated the location of those vitally important features of a high altitude ship.

"If necessary, we can cut 'em all off, and they'll have to come down pronto or stifle to death," Jeff went on eagerly.

"All right, boy, get back of 'em and fly as you never did before," Bates told him. "We don't want to kill any of 'em. The ray jumps from the very nose of the ship; so get a good bead."

And Jeff did. Prone as he was, he could sight excellently and he trained the nose of his ship almost as accurately as he would have been able to point a gun. The ray leaped forth. Its direction could be controlled to a certain extent by Bates through the movement of a lever, and before Jeff's widened eyes he saw that covered mound of machinery become a molten mass of metal.

"That'll show 'em!" he said exultantly. "Now let's see what happens—"

"They're surrendering! Look!" Bates yelled. "See?"

As though by magic the windows along the side of the fuselage that was within their vision all lighted up, and at one of them a man was waving something white.

Jeff's mind was working with swift sureness, now that the end of the trail was so near. They could not afford to take any chance of their prey's eluding them now. That ship held secrets of tremendous importance. What was to prevent those passengers from suddenly jumping in separate 'chutes and either letting the mystery craft crash or blowing it up, if there were anything aboard that they wanted to conceal? If there were many people on it and they all jumped, some of them—perhaps the most important ones—would have a chance of escape.

In a moment he explained to Bates the scheme that had suddenly flashed into his mind. For an instant the big pilot-inventor hesitated. Then:

"It's taking a chance," he said slowly, "but I guess it's worth it, and if anything goes wrong with one of us it will go a lot further wrong with them. You stay in the ship and I'll do it."

"Not by a long shot!" Jeff told him. "You know this ship better than I do. I'll do it."

There was a moment's bitter argument and then Bates gave in.

"O. K.," he said slowly.

For a moment the eyes of the two airmen met with such understanding as can come only between two people who have been tested by fire together.

"Gosh, if we only had a telephone," Bates said for the hundredth time. "I guess they'll know what we're up to, though."

Jeff maneuvered the torpedo ship in a huge circle until it was coming up behind the air yacht and a few feet above it. He cut the power and as the ship lost speed and started to drop, Bates snapped out the big parachute from the top. Then, using the throttle, Jeff maneuvered it directly over the larger ship. Throttled now to the exact speed of the mammoth below them, he took the small individual parachute Bates dragged forth from the rear of the cylindrical enclosure, and adjusted it on himself.

Through the circle of glass he could see a portion of the top of the fuselage below him open up. It was a large opening and on the first deck below it rested the torpedo ship in which Sergoff and his unknown passenger had escaped. Two men were waiting, oxygen bags on their faces.

The big ship had slowed down to only sixty miles an hour, or less, its helicopter working on wings and tail to hold it there. Gradually its speed lessened until both ships were hanging in the air.

"You've got your ray guns, haven't you?" Bates asked.

Jeff nodded, patting his waist band significantly.

"Well, good luck, kid," Bates said huskily, "and if anything happens, I'll burn that baby to pieces. You tell 'em so for me."

Their ship settled as Jeff contracted the parachute slightly until it was barely two feet above the other ship. He took the emergency oxygen mask and a moment later he and Bates shifted positions.

"Get set," Jeff said. "I'm going to open the door."

He did. Freezing air swept in upon them. Bates, who also had his oxygen bag on, shivered, Jeff, almost numb with the cold, both guns in his hand, fairly tumbled out of the door to the flat, rail-guarded fuselage top. A second later, Bates' ship was up and away.

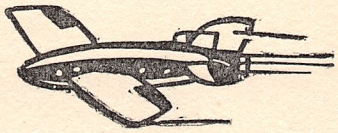
As Jeff ran down the steps to the lower deck, a portion of the fuselage top that had been rolled back slid into place again. Oxygen masks hid the faces of the two men who were awaiting him.

"First thing I want to tell you is this," Jeff said, his tones muffled by the mask. He ripped it off so that he could talk better. It was no longer necessary in the air-tight ship. "If there's one bit of monkey business and you don't land exactly where I say, Potty Bates will carve this yacht of yours to pieces in two minutes. Where's that cracked scientist, and who are you?"

His guns were trained upon the men who were almost completely disguised in flannel coveralls and their oxygen helmets. Slowly the first helmet came off and Jeff was staring into the bespectacled eyes of the Rolvakian.

"Come on, you! Off with yours, too!" Jeff commanded.

The burly companion of the scientist tore off his mask with an impatient motion, as though glad now that the climax had come to get it over quickly, and Jeff found himself staring into the eyes of Samuel Grayley Munson.



CORNERED IN THE SKY

CHAPTER XVI

CORNERED IN THE SKY

FOR a moment, standing there in the low-ceilinged compartment, the doors closed, Jeff gasped in unbelieving astonishment. His head was thrown back, and his eyes incredulously challenged the fleshy-faced capitalist before him.

"Why—where did you come from?" he said stupidly, his world reeling about him.

Mr. Munson—his ally—here! Then suddenly it came to him. This air yacht belonged to Mr. Munson, but it had been black and white and now its color was blue.

"I came up with Dr. Sergoff," Munson said quietly. His face seemed to have gone suddenly flabby, and deep furrows appeared in it.

Jeff snapped back into normality once more as the meaning of it all swept over him.

"Oh, I see," he said slowly, and there was steel

and ice in his level tones. "So United was behind all this. And you—you—"

For a moment he could find no words. The man who had pretended to help them was the rottenest traitor of them all. A thousand hot words hung on his tongue, but somehow he could not say them. There was so much to be said that he did not know where to start. As the ordeal of the past weeks swept back over him, it seemed to him that he had never before come in contact with a human being so despicable as the man who stood facing him. His face flushed and his lips opened to speak, but no words came.

"Now wait a minute, son," Munson said finally. "Don't get off your base. I know everything you're going to say, and I guess it would be right."

The domineering captain of industry was broken, it was easy to see that. Weary and tired and licked.

The ship was under way again and in the silence that followed a dozen thoughts came to Jeff's mind.

"You can tell your story later, Munson," he said suddenly. "There's a lot to be done. Where is the radio phone?"

"Forward," Munson told him.

"All right, you two. Lead me to it and no false moves. Remember what I said."

Munson nodded.

"How many people aboard?" snapped Jeff.

"Just the crew," Munson returned. "Don't worry, Donaldson; I wouldn't hurt a hair of your head."

"No," laughed Jeff, shortly, "you and your men have only tried to kill me a few times in the last ten hours. You weren't satisfied with trying to ruin my business."

Munson's eyes dropped.

"You won't believe it, but I had nothing to do with that," he said hopelessly. Then suddenly he seemed to straighten. "And listen, son," he said, some of the old ring in his voice, "that will be enough insults from you until you find out what you're talking about!"

"I know what I'm talking about," Jeff snapped back at him. "Let's go to the phones."

Sergoff had not said a word. Somehow the Rolvakian's eyes seemed very dull behind the tremendously thick spectacles and he did not seem to be greatly interested in what was happening. He fell in behind Munson obediently as the United man

led the way through the palatially appointed yacht.

"Who are your pilots?" Jeff demanded as they went through the main salon.

"Jim Derrick and George Waltham. They don't know what it's all about," Munson told him. "Here are your phones. Go to it."

And Jeff went to it. First Washington was notified, then New York, and San Francisco. National police headquarters was told to broadcast the warning that the single torpedo ship was manned by friends. A landing would be made in New York with Munson and the Rolvakian, and Jeff suggested that an adequate escort of police ships gather round him as quickly as possible so that Bates could be relieved. Bates would understand the international code sent to him from one of the police ships by flashlight, and could get out of the air for a much needed rest.

"Holmesdale can be reached aboard the United transcontinental ship Number 7," the chief of the national air police told Jeff jubilantly. "We captured all the men in that ranch house and got down to the power plant before it was destroyed. They had that all set to blow up."

"Gosh, I'm glad to know that," gulped Jeff. "I

thought maybe those boys had the toughest deal of all stuck down there."

"Everything's O. K.," the chief told him, "and half the scientists in America are rushing to the scene to find out what it's all about. There's another plant somewhere, too. Maybe Munson can tell us something about that. Six ships came down between St. Louis and Chicago a while ago—"

"Wait a minute," Jeff interrupted. "Listen, Munson, what about those six forced landings a couple of hours ago?"

"Just recently," Munson told him, lighting a cigar, "Dr. Sergoff, here, perfected his invisible ray so that less machinery and power were needed for it and it can be used from a ship now. There's a plant aboard this very yacht."

Jeff relayed the news in terse sentences. The distinguished head of national police was gurgling with excitement like a small boy.

"I'll be in New York to see you when you land," he fairly shouted over the phone. "Good-by, and congratulations!"

A dozen more details were attended to by Jeff as the great liner rushed along toward New York. He notified his mother and father and then talked

to Mr. Reginald Holmesdale. The television screen above his phone took shape and he beheld the elongated Mr. Holmesdale seated comfortably in one corner of a compartment on the transcontinental liner, with the door closed, and Patterson lounging on a berth. Mr. Holmesdale had his harmonica in one hand as he lifted the phone and had evidently just been regaling Patterson with some music.

"Oh-oh, glad to hear from you, old boy," came his voice over the phone. "Everything top hole, eh, what? Munson, eh? Had an idea about that. Only had time to mention his yacht before you took off. Think back to that little scene in the desert. I tried to throw him off guard by saying we'd watch ships instead of the ground. I wasn't sure enough to whisper it to you, but when they spotted us from that ranch house when we were so high and so well camouflaged, I knew that Munson had warned the conspirators to look out for us. Well, all credit to you. I had the idea, but you sat in on the death."

"Thanks to you," cut in Jeff happily.

"By the way," Holmesdale continued, "the Rolvakian police are on the way over to get Sergoff. They say that this affair will end the Equalizers. Bust 'em all up. So the world will be safe a while

longer. Sergoff evidently was going to use Munson until he had enough ray machines to destroy the world."

Jeff whistled. Munson, after all, had been nothing but a tool in the hands of fanatics. He hung up, pondering. Now he remembered some of the apparently cryptic things that Holmesdale had said back in the desert. Yet, there was a lot that he couldn't understand.

"Well, there's no time like the present, Munson," he said.

Sergoff, smoking a very long and very black cigar, seemed totally relaxed. His curiously blank, opaque eyes rested on the ceiling. When Jeff had seen those eyes last they had been gleaming like hot coals. Now they were a curtain for the scientist's thoughts.

"O. K.," Munson said, squaring his shoulders. His bulldog jaw was outthrust as though in defiance. The moment of weakness in which Jeff had surprised him when he had landed aboard the ship seemed to have passed.

"First off, Donaldson," he said crisply, his eyes meeting Jeff's without flinching, "do you know the terms of the last offer I made to that fool Farley?"

"Offer of what?"

"I wanted Farley to amalgamate his system with ours and give us the secret of his new metal."

"No, I don't know the terms of the offer."

"Well, I told Farley I'd give him twenty-five per cent—that from the biggest transportation system in the world—twenty-five per cent to a little honky-tonk outfit with about twenty-five ships. But dog-goned good ships!"

"Well," Jeff acknowledged, "that's generous enough, but what about it?" The young pilot was tight-lipped and hostile.

"There's this about it. The crazy old fool turned it down. Now listen, Jeff, I'm not giving any alibis. My dream is and always has been to run the best transportation system in the world, with the best ships and the best service, giving the public a square deal. We were practically a monopoly. With all our ships made according to your design and with your metal, we'd have been better. Farley is a stubborn old fool who would not coöperate. Wanted to be the whole hog or none. That's item Number 1."

"And it doesn't mean a thing," declared Jeff, "not beside murder and treason and—"

"Wait a minute," Munson cut in crisply. "Oh,

not that I blame you, but just the same, wait a minute. One year ago, in Stalgrad, I met Dr. Sergoff. Dr. Sergoff is a sort of philosopher—he's against all government, against all our machine-made civilization. He doesn't understand English—don't worry. He's as crazy as a loon, but he's got the greatest scientific mind the world has ever seen, in my opinion."

"Yes?"

"Do you know why he was working on this stuff—what his idea was? Well, I'll tell you. He was just going to raise the dickens with the whole world. Got an idea that machinery is destroying man and the world, that everybody ought to go back to nature and live like so many savages on nuts and grass, without clothes, and he was just going to muss up the whole system of mechanical civilization. Get me?"

Jeff nodded. He glanced at the blank-eyed, bearded Rolvakian and Munson's words were not hard to believe.

"So here's what I did," the square-jawed transportation man went on. "He needed money to go ahead and I bought him, body and soul. I knew somebody'd get hold of his stuff, and I wanted that

somebody to be the United States. Believe that or not. I've sunk millions of my own money to give him his chance, and then when he seemed to be getting somewhere, I decided to use it a little bit for my own purposes before turning it over to the Government."

"Yeah?" Jeff asked sarcastically. "You didn't figure out what would happen after Sergoff had used you and your money to the limit, and then gone hog-wild."

Munson flushed. He was haggard and drawn, but his spirit was unbroken.

"Just to make sure that nobody could disbelieve me," he went on defiantly, "I've placed on file in the Department of Defense at Washington a letter that is to be opened at my death, if I have not during my lifetime given the authorities there permission to open it. It contains every formula that Dr. Sergoff has, and every detail of what he's accomplished to date so that this country can get the benefit of it. I was going to use it myself first in a minor way. Why? Because it's been the dream of my life to control the commercial lines of this continent, and leave the whole world a mark to shoot at. United is mine. I conceived it, I've built it, and

I run it. Think I'd let an old fogy like Farley keep me from the dream of a lifetime? Let him keep me, the best transportation expert in the world to-day, from giving this country the finest system possible! Laugh at me if you like, but who is the individual man most responsible for the prosperity of this country?"

His sunken eyes flamed into Jeff's and something in those ringing words affected the young pilot curiously. He was conscious of a deeper understanding of Munson the man. As Jeff studied the burly executive—strong, ruthless, keen and able, almost limitlessly wealthy, with transportation his god, and the dictatorship of the nerve lines of the nation his dream—it was easy for the young pilot to see that a species of fanatic rivaling Dr. Sergoff was sitting before him.

"I don't want and didn't want any more money," Munson went on. "All I wanted was to show the world what a transportation system could be, and Farley blocked me, out of sheer, dumb foolishness. That old nut of an inventor would run his little two-by-four system to the end of time—not because it's efficient, or amounts to anything, but just because he has the best commercial ships the world

has ever seen! I've nothing against you, Jeff, you understand, but what do Independent's dub lines amount to? Comparatively little! But I could see possibilities of Farley's ships, made out of that metal, gradually competing with me—cramping my plans, complicating all I've dreamed of doing. So I sent down your ships, and a few of my own just to keep suspicion away from me.

"I was wrong, probably, from a narrow-minded point of view, and you and the world can do what you want to with me. I don't give a hoot. I know what my motives were, and I tell you the end justified the means."

Despite the curious impressiveness of Munson's words, Jeff said sardonically, "Including a little assorted murder, eh, Munson? You were ready to have Holmesdale and Bates and me burned to death by that funny little ray your doctor built into his ship. We'd have made regular male Joan of Arcs, burned at the stake for the future of transportation. And then pretty soon you'd have had Sergoff cutting loose with machines built by your money. Nice mess."

For a minute there was silence. The ship was shooting past Buffalo now and the absorbed Jeff

hardly realized that as it gradually came down from its high altitude it was being surrounded by cavorting airplanes which were exuberantly escorting it home.

Doctor Sergoff seemed somnolent now as the other two men fought their battle within the small captain's cabin. Suddenly Munson seemed to slump and the fight went out of him. He passed his hand across his eyes wearily.

"I don't expect you to believe me," he said. "But I thought I had Sergoff here under control, and the gang with him, too. When I let you and Holmesdale hang up above the power plant I didn't know what was going to happen exactly, but I immediately started figuring whether to destroy the plant or try to wiggle out some other way. I gave orders that no move should be made that could possibly give away any information.

"Sergoff just hit the ceiling, I guess, when you continued to hang up there as though you knew something, and that devil Alexy, who hasn't got a human feeling, persuaded him, I think, to try to make way with you. I've got a spy planted down there, and there's no doubt about Alexy. He has turned traitor, both to his own nation and to ours."

"He's an Equalizer," said Jeff simply. "Like Sergoff, he'd feel justified in anything. Holmesdale had all that dope."

"Boy," the magnate said, half-choking, "I wish you could find it in your heart to believe me. I had no idea that you were in any physical danger. And I felt sure I could keep things under control."

Munson's eyes were humble as he said that, and the pleading note in his voice seemed to Jeff utterly sincere. Silence followed and Jeff's mind roved back over the past. There was no doubt that Mr. Farley was an eccentric of high degree, and there was no doubt that an offer of twenty-five per cent of the transportation trust's stock in return for his invention was more than liberal. It was an offer such as only an enthusiast like Munson would make. Now that Jeff came to think of it, it had never occurred to Farley to put his invention at the disposal of the Government or to use it, as doctors always used the results of their own investigations, for the good of the people as a whole. The old scientist had kept it a strictly selfish proposition.

Not that that excused Munson, exactly, but after all, very rarely was anyone completely right and someone else completely wrong. At least, Jeff felt

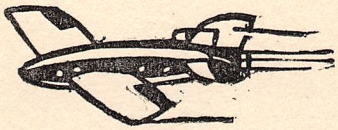
he understood how Munson's mind had worked—even if it had worked toward mistaken conclusions.

Moment after moment went by and suddenly Jeff was surprised to find that Munson was asleep. The big man looked completely exhausted.

"Well, he isn't any spring chicken," Jeff thought, "and he's probably been through plenty himself."

His mind drifted from reminiscence to reminiscence—Holmesdale's uncanny analysis of men and motives; the terrific fight with Bates; the nonchalantly ruthless Alexy; that underground power plant, a thing of horrid grandeur. In spite of himself, Jeff was reliving the strain of the past days. Suddenly his strength left him. As the great ship settled down on the Municipal Airdrome, almost within sight of Jeff's own office, the two arch-criminals of what the papers called the Power Ray Conspiracy were sound asleep—and beside them slumped the man who had captured them, himself dead to the world.

Hundreds of droning airplanes surrounded the airdrome, and hundreds of police held back curious mobs, but the men they wanted to see had no desire to see them.



INDIA IN THE MORNING

CHAPTER XVII

INDIA IN THE MORNING

THREE days later there was a banquet being held aboard the official yacht assigned to the general manager of United Airways. The great aërial yacht was on its way to India, where the general manager and his guests were to spend a two-weeks vacation.

It was a small and exclusive gathering, the guest seats being filled by Mr. George Patterson, pilot; Mr. John Bates, consulting engineer and chief pilot; and Mr. Reginald Holmesdale, international detective and harmonica virtuoso of parts. The chair occupied by the general manager, Mr. Jeffrey Donaldson, was the seat of honor, although it looked just like the other three seats at the table.

Dinner over, Jeff and his guests went out on deck and gazed down at the heaving Atlantic.

"You know," Jeff said thoughtfully, "now that Farley's given in and I've got this swell job, and all that, there's still one thing that bothers me."

"Only one?" Holmesdale yawned. "You're lucky. But what is it?"

"Mr. Munson, somehow," Jeff said. "Of course he was wrong, and yet look what he's done. And he really did have all that dope on file in Washington, just as he said. He had honest motives. You've got to feel sorry for him."

"Yes and no," stated Bates. "His fundamental motives were all right, but a man drunk with power is dangerous, especially a man in Munson's position."

"Yet he'd sunk five million of his own money," young Patterson remarked, "and I guess he's made war an impossibility for sure."

"Yes, but he endangered the world doing it," Holmesdale pointed out. "If Bates and Jeff hadn't caught him when they did, nobody knows what would have happened."

"By the way, where is Munson?" Bates asked. "Shut up somewhere, like Sergoff and Alexy?"

"No," Jeff shook his head. "I thought you knew. By the way, Sergoff isn't so badly off. That estate they've penned him in on to do his work is at least a thousand acres big, with good living quarters. But Munson isn't penned up at all. He's fired from

transportation, though, for the rest of his natural life, with all his holdings turned into cash, and he had been pledged never to make a business deal of any kind again. Otherwise, he's free as air."

"That isn't so bad for anyone as rich as he is," Patterson said. "I didn't know what they'd done with him."

"It's still confidential," nodded Jeff, "but you have a right to know. I feel sorry for him. He'll die now, let out of harness like this."

For a minute the little group was very sober.

Jeff stood up and leaned over the rail. The yacht, cruising at slow speed for comfort, with a windshield around the deck to shelter the passengers, plowed majestically along through the moonlit night.

"There's one thing I know," he said suddenly. "Now that everything is over, I'm going to use Munson if the Government will let me."

Holmesdale finished a plaintive bar on the harmonica.

"How?" he inquired.

"Munson's a genius at transportation," Jeff said thoughtfully. "It would be almost a crime for the country to lose his services. Why couldn't he be

general manager emeritus—to advise a young squirt like me when troubles arise? What say?"

During the moment of surprise that held the group, Holmesdale took up his harmonica and blew forth the old tune they all knew so well—"All those in favor say Aye, boys, Aye, Aye, Aye—"

"Any objections?" demanded Jeff; then, a second later, "There being none, the motion is hereby carried!"

"Which reminds me," said Mr. Holmesdale, "that the motion of this ship has got me sleepy and that I'm going to bed. See you in India in the morning, boys. What?"

"O. K.," grinned Jeff. "Do you suppose any of those bandits you rounded up just before you hit our airdrome a week or so ago will pay us a call?"

"Can't say," yawned Holmesdale, "but as long as they don't come shooting funny rays of light, who cares?"

THE END